

# DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## AIR QUALITY OPERATING/CONSTRUCTION PERMIT

Permit No. 271TVP01  
Application No. 271

Issue Date: July 22, 2003  
Expiration Date: August 21, 2008

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating/construction permit to the Permittee, **BP Exploration (Alaska) Inc.**, for the operation of the **Prudhoe Seawater Treatment Plant**.

This permit satisfies the obligation of the owner and operator to obtain an operating/construction permit as set out in AS 46.14.130(a) and (b).

As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating/construction permit.

All facility-specific terms and conditions of Air Quality Control Permit-to-Operate No. 9473-AA014 as amended through July 29, 1996 have been incorporated into this operating/construction permit. This permit, in accordance with the provisions of 18 AAC 50.305(a)(3), revises or rescinds specific terms and conditions of Air Quality Control Permit-to-Operate 9473-AA014.

This Operating/Construction Permit becomes effective August 22, 2003.

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John F. Kuterbach, Manager  
Air Permits Program

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## List of Abbreviations Used in this Permit

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
dscf	Dry standard cubic foot
EPA	US Environmental Protection Agency
gr./dscf	grain per dry standard cubic foot (1 pound = 7000 grains)
GPH	gallons per hour
HAPs or HACs	Hazardous Air Pollutants or Hazardous Air Contaminants [ <i>HAPs</i> or <i>HACs</i> as contained in AS 46.14.990(14)]
ID	Source Identification Number
kPa	kiloPascals
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology as contained in 40 C.F.R. 63.
MR&R	Monitoring, Recordkeeping, and Reporting
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants [ <i>NESHAPS</i> as contained in 40 C.F.R. 61]
NO <sub>x</sub>	Nitrogen Oxides
NSPS	Federal New Source Performance Standards [ <i>NSPS</i> as contained in 40 C.F.R. 60]
O & M	Operation and Maintenance
O <sub>2</sub>	Oxygen
PM-10	Particulate Matter less than or equal to a nominal ten microns in diameter
ppm	Parts per million
ppmv	Parts per million by volume
ppmvd	Parts per million by volume on a dry basis
psia	Pounds per Square Inch (at atmospheric pressure)
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
SIC	Standard Industrial Classification
SO <sub>2</sub>	Sulfur dioxide
TPH	Tons per hour
TPY	Tons per year
VOC	volatile organic compound [ <i>VOC</i> as defined in 18 AAC 50.990(103)]
VOL	volatile organic liquid [ <i>VOL</i> as defined in 40 C.F.R. 60.111b, Subpart Kb]
wt%	weight percent

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## **Section 1. Identification**

### **Names and Addresses**

Permittee: BP Exploration (Alaska) Inc.  
900 East Benson Blvd. (zip 99508)  
P.O. Box 196612  
Anchorage, AK 99519-6612

Facility Name: **Prudhoe Seawater Treatment Plant**

Location: Prudhoe Bay, Alaska, Section 11, Township 12N,  
Range 14E, Umiat Meridian

Owners:

BP Exploration (Alaska) Inc. 900 E. Benson Blvd (Zip 99508) P. O. Box 196612 Anchorage, AK 99519-6612	ConocoPhillips Alaska, Inc 700 G Street (Zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360
ChevronTexaco 11111 S. Wilcrest (Zip 77099) P.O. Box 36366 Houston, TX 77236	ExxonMobil Alaska Prod. Inc. 3301 C Street, Suite 400 (Zip 99503) P.O. Box 196601 Anchorage, AK 99519-6601
Forest Oil Corporation 310 K Street, Suite 700 Anchorage, AK 99501	

Operator: Same as Permittee

Permittee's Responsible Official: Craig L. Wiggs, GPB Operations Manager

Designated Agent: CT Corporation  
801 W 10th St, Suite 300  
Juneau, AK 99801

Facility and Building Contact: TJ Barnes/Rick Rodriguez  
(907) 659-8641  
email: gpmaotl@bp.com

Fee Contact: James A. Pfeiffer, Air Specialist

Facility Process Description

SIC Code of the Facility: 1311 Waterflood in Support of Crude Petroleum and Natural Gas

NAICS Code of the Facility: 211111

## **Section 2. General Emission Information**

[18 AAC 50.350(b)(1), 1/18/97]

Emissions of Regulated Air Contaminants, as provided in the Permittee's application:

Nitrogen Oxides, Carbon Monoxide, Sulfur Dioxide, Particulate Matter (PM-10), Volatile Organic Compounds, and various Hazardous Air Pollutants (HAPs)

Facility Classifications:

1. **18 AAC 50.300(b)(2).** Prudhoe Seawater Treatment Plant is a facility containing fuel burning equipment with a rated capacity of 100 million Btu per hour or more.
2. **18 AAC 50.300(c)(1).** Prudhoe Seawater Treatment Plant is a facility that emits or has the potential to emit 250 TPY or more of a regulated air contaminant in an area designated attainment or unclassifiable for that air contaminant under 18 AAC 50.015

Operating Permit Classifications:

1. **18 AAC 50.325(b)(1).** Prudhoe Seawater Treatment Plant is a facility that emits or has the potential to emit 100 TPY or more of a regulated air contaminant.
2. **18 AAC 50.325(b)(3).** Prudhoe Seawater Treatment Plant is a facility that contains a source subject to one or more of the standards adopted by reference in 18 AAC 50.040(a)(1), 18 AAC 50.040(a)(2)(L), 18 AAC 50.040(a)(2)(V) and 18 AAC 50.040(d).
3. **18 AAC 50.325(c).** Prudhoe Seawater Treatment Plant is a facility described in 18 AAC 50.300(b)-(e), therefore, it is within the category of facilities subject to AS 46.14.130(b)(4).

### Section 3. Source Inventory and Description

[18 AAC 50.350(d)(2), 1/18/97]

Sources listed in Table 1 have specific monitoring, record keeping, or reporting conditions in this permit. Source descriptions and ratings are given for identification purposes only.

**Table 1 - Source Inventory**

ID	Tag No.	Source Description	Rating/size	Installation, Construction, or Modification/ Reconstruction Date <sup>1</sup>
<b>Dual-Fuel Fired Turbines</b>				
1	NGT-11-1602	Solar Centaur Standby Emergency Generator	3,800 hp ISO (2,835 kw)	Between 1983 and 1987
2	NGT-11-1603	Solar Centaur Standby Emergency Generator	3,800 hp ISO (2,835 kw)	Between 1983 and 1987
<b>Gas Fired Heaters</b>				
3	NGH-11-14401 <sup>2</sup>	Lummus Hot Water Heater	156 MMBtu/hr (heat input, LHV)	1983
4	NGH-11-14402	Lummus Hot Water Heater	156 MMBtu/hr (heat input, LHV)	1983
5	NGH-11-14403	Lummus Hot Water Heater	156 MMBtu/hr (heat input, LHV)	1983
6	NGH-11-14404 <sup>2</sup>	Lummus Hot Water Heater	156 MMBtu/hr (heat input, LHV)	1983
<b>Dual-Fuel Fired Heaters</b>				
7	NGH-11-14405	Lummus Hot Water Heater	156 MMBtu/hr (heat input, LHV)	1983
8	NGH-11-14406	Lummus Hot Water Heater	156 MMBtu/hr (heat input, LHV)	1983
<b>Liquid fuel-fired Equipment</b>				
9	FWP-11-15802	Cummins Emergency Fire Water pump	187 hp	1983
10	EDG-11-1601	GE Electromotive Emergency Generator	3,600 hp (2,685 kw)	1983
<b>Fixed Roof Storage Tanks Greater Than 10,000 Gallon Capacity</b>				
11	T-11-19601	Arctic #1 Diesel Storage Tank	256,200 gallons	Installed 1983

- 1- Date construction commenced (if known) or the startup date of the unit. If a unit has been modified as defined by AS 46.14.990, then the most recent modification date is provided.
- 2- This heater is installed at the facility, but is not commissioned as of 6-6-2003.

#### **Section 4.        *Emission Fees***

- 1.    Assessable Emissions.** The Permittee shall pay to the Department an annual emission fee based on the facility's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 18 AAC 50.410(b). The Department will assess fees per ton of each air contaminant that the facility emits or has the potential to emit in quantities greater than 10 tons per year. The quantity for which fees will be assessed is the lesser of

- 1.1    the facility's assessable potential to emit of 763 TPY; or
- 1.2    the facility's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon actual annual emissions emitted during the most recent consecutive 12-month period or another 12 month period approved in writing by the Department, when demonstrated by
  - a.     an enforceable test method described in 18 AAC 50.220;
  - b.     material balance calculations;
  - c.     emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
  - d.     other methods and calculations approved by the Department.

[18 AAC 50.346(a)(1), 5/3/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

- 2.    Assessable Emission Estimates.** Emission fees will be assessed as follows:

- 2.1    no later than March 31 of each year, the Permittee may submit an estimate of the facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or
- 2.2    if no estimate is received on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in condition 1.1.

[18 AAC 50.346(a)(1), 5/3/02 and 18 AAC 50.350(c) & 50.400 – 50.420, 1/18/97]

## Section 5. Source-Specific Requirements

### Fuel-Burning Equipment

3. **Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source ID(s) 1 through 10 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:

- a. more than 20% for a total of more than three minutes in any one hour<sup>1</sup>,  
[18 AAC 50.055(a)(1), 1/18/97 and 18 AAC 50.350(d)(1)(C), 6/21/98]  
[40 CFR 52.70, 7/1/01]
- b. more than 20% averaged over any six consecutive minutes,  
[18 AAC 50.055(a)(1) & 50.346(c), 5/3/02 and 18 AAC 50.350(d)(1)(C), 6/21/98]

The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source ID(s) 3 through 8 listed in Table 1 to reduce visibility through the exhaust effluent by any of the following:

- c. more than 5% averaged over any six consecutive minutes.  
[Federal Prudhoe Bay Unit PSD Permit No. PSD-X81-01 (via SWAP IV), as amended 8/29/1997]
- 3.1 For Source ID(s) 1, 2, 7, and 8, when operated only on gas, monitoring shall consist of an annual certification that the sources fired only gas. If any of Source ID(s) 1, 2, 7, or 8 operate on liquid fuel for more than 400 hours in any consecutive 12-month period monitor, record, and report according to conditions 17.1b through 19 for that source. Otherwise, monitoring shall consist of an annual certification of compliance with the opacity standard.
  - 3.2 For Source ID(s) 3 through 6, burn only gas as fuel. Monitoring for these sources shall consist of an annual certification that each of these sources fired only gas. Report under condition 57 if any fuel is burned other than gas.
  - 3.3 For Source ID(s) 9 and 10, as long as they do not exceed 400 hours of emergency and non-emergency operation per consecutive 12-month period, monitoring shall consist of an annual certification of compliance with the opacity standard. Otherwise, monitor, record, and report visible emissions in accordance with conditions 17 through 19.

[18 AAC 50.350(g) - (i) & 50.346(c), 5/3/02]

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<sup>1</sup> For purposes of this permit, the “more than three minutes in any one hour” criterion in this condition and condition 27 will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA. The six-minute average standard is enforceable only by the state until the new regulations dated May 3, 2002 is approved by EPA into the SIP at which time this standard becomes federally enforceable.



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- 4. Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from Source ID(s) 1 through 10 listed in Table 1 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.055(b)(1), 1/18/97 and 18 AAC 50.350(d)(1)(C), 6/21/98]

- 4.1 For Source ID(s) 1, 2, 7, and 8, when operated only on gas, monitoring shall consist of an annual certification that the sources fired only gas. If any of Source ID(s) 1, 2, 7, or 8 operate on liquid fuel for more than 400 hours in any consecutive 12-month period monitor, record, and report according to conditions 20 through 21 for Source ID(s) 7 or 8 or according to conditions 22 through 24 for Source ID(s) 1 or 2. Otherwise, monitoring shall consist of an annual certification of compliance with the opacity standard.
- 4.2 For Source ID(s) 3 through 6, burn only gas as fuel. Monitoring for these sources shall consist of an annual certification that each of these sources fired only gas. Report under condition 57 if any fuel is burned other than gas.
- 4.3 For Source ID(s) 9 and 10, as long as they do not exceed 400 hours of emergency and non-emergency operation per consecutive 12-month period, monitoring shall consist of an annual certification of compliance with the particulate matter standard. Otherwise, monitor, record, and report visible emissions in accordance with conditions 22 through 24.

[18 AAC 50.346(c) & 50.350(g) – (i), 5/3/02]

- 5. Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from Source ID(s) 1 through 10 to exceed 500 ppm averaged over three hours.

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.055(c), 1/18/97; and 18 AAC 50.350(d)(1)(C), 6/21/98]

- 5.1 For Source ID(s) 1 through 8 when using fuel gas:
- a. Monitoring conducted as required by condition 16.1 satisfies the monitoring requirements necessary to assure compliance with this condition.
  - b. Keep records of analyses conducted in accordance with condition 16.2.
  - c. Report as excess emissions, in accordance with condition 57, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of condition 5.
  - d. Include copies of the records required by condition 5.1b with the facility operating report required by condition 59.

[18 AAC 50.350(g) - (i), 5/3/02]

- 5.2 For Source ID(s) 1, 2, 7, 8, 9 and 10, using liquid fuel from a North Slope topping plant, the Permittee shall obtain from the topping plant the results of a monthly fuel sulfur analysis.

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- a. The Permittee shall include in the facility operating report required by condition 59 a list of the sulfur content measured for each month covered by the report.
  - b. If the fuel contains greater than 0.75% sulfur by weight, the Permittee shall calculate SO<sub>2</sub> emissions in PPM using either the SO<sub>2</sub> material balance calculation in Section 16, or Method 19 of 40 C.F.R 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).
  - c. If SO<sub>2</sub> emissions are calculated under condition 5.2b to exceed 500 ppm, the Permittee shall report under condition 57. The report shall document the calculation under condition 5.2b.
  - d. For fuel with a sulfur content greater than 0.75% by weight, the Permittee shall include in the facility operating report required by condition 59 the calculated SO<sub>2</sub> emissions in PPM.

[18 AAC 50.346(c) & 350(g) - (i), 5/3/02]

#### BACT Emission Limits for Heaters

6. The Permittee shall limit actual emissions from the heaters, Source ID(s) 3 through 8, as indicated in Table 2.

[Federal Prudhoe Bay Unit PSD Permit No. PSD-X81-01 (via SWAP IV), as amended 8/29/1997]

- 6.1 The Permittee shall calculate the monthly and the consecutive 12-month summation of emissions of NO<sub>x</sub> and CO for Source ID(s) 3 through 8. Use the emission factors found in Table 5 of Section 17 of this permit, along with the hours of operation from condition 7 and/or amount of fuel used, to calculate the monthly emissions for each unit.
- 6.2 Report the monthly and the consecutive twelve-month period summation of emissions, for each month of the reporting period, with each facility operating report required by condition 59.
- 6.3 Notify the Department per condition 57 should the consecutive 12-month summation of emissions of any air contaminant exceed the limit for that contaminant in Table 2.

[18 AAC 50.350(g) - (i), 1/18/97]

**Table 2 – Heater BACT Emissions Limits**

<b>Pollutant</b>	<b>Source IDs</b>	<b>Make/Model</b>	<b>Equipment Tag Number</b>	<b>Emission Limit (short-term) per Individual Heater</b>	<b>Annual Emission Limit for Heaters (tpy)</b>
<b>NO<sub>x</sub></b>	3 through 8	Lummus	NGH-11-14401 NGH-11-14402 NGH-11-14403 NGH-11-14404 NGH-11-14405 NGH-11-14406	0.08 lb/MMBtu	61 tons each
<b>CO</b>	3 through 8	Lummus	NGH-11-14401 NGH-11-14402 NGH-11-14403 NGH-11-14404 NGH-11-14405 NGH-11-14406	0.061 lb/MMBtu	46 tons each

Notes: 1) All emission limitations are annual average unless otherwise noted.  
2) All emission limits refer to full load, standard conditions.

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## Hours of Operation Monitoring

7. The Permittee shall monitor, record and report the hours of operation as follow:
- [Operating Permit No. 9473-AA014, as amended through 7/29/96]  
[18 AAC 50.350 (d)(1)(D), 1/18/97]
- 7.1 Monitor and record the monthly operating time for each of Source ID(s) 1 through 10.
- 7.2 For Source IDs 1, 2, 7, and 8, monitor and record the monthly operating time separately for fuel gas and liquid fuel-firing and record the consecutive 12-month total liquid fuel operating time.
- 7.3 Report using the facility operating report under condition 59, the data recorded under conditions 7.1 and 7.2 for each month of the operating period.
- [18 AAC 50.350(g) – (i), 5/3/02]

## Fuel Consumption Monitoring

8. The Permittee shall monitor the monthly fuel consumption for Source ID(s) 1 through 10 as source category totals. The total volume of fuel (fuel gas and/or liquid fuel) consumed may be estimated for all sources.
- [Operating Permit No. 9473-AA014, as amended through 7/29/96]  
[18 AAC 50.350 (d)(1)(D), 1/18/97]
- 8.1 Record the monthly fuel consumption for each source category (turbines, heaters, and engines).
- 8.2 Submit copies of the records required by condition 8.1 with the facility operating report required by condition 59. Report the total quantity and type of fuel burned in each source category (turbines, heaters, and engines), and the total quantity of fuel burned at the facility, MMscf per month for fuel gas-fired sources and gallons per month for liquid fuel-fired sources.
- [18 AAC 50.350(g) – (i), 5/3/02]

## Flue Gas Monitoring for Source ID(s) 3 through 8

9. For Source IDs 3 through 8, the Permittee shall install, maintain, and operate in good working order a continuous emissions monitoring system (CEMS) for recording and monitoring flue gas content of CO or O<sub>2</sub> which shall be installed and calibrated according to 40 CFR 60, Appendix B.
- As an alternative to the installation and operation of the CEMS, the Permittee may elect to conduct monitoring of the flue gas content of CO or O<sub>2</sub> not less than once per month as outlined in the monitoring plan approved by the Department on April 18, 1985.

[Federal Prudhoe Bay Unit PSD Permit No. PSD-X81-01 (via SWAP IV), as amended 8/29/1997]  
[18 AAC 50.350(d)(1)(D) & 50.350(f)(4), 1/18/97]

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- 9.1 Record the carbon monoxide or oxygen concentration of the flue gas measured in accordance with condition 9. In addition, record the heat absorbed by the Hot Water as percent of design during O<sub>2</sub> measurements.

[18 AAC 50.350(g) – (i), 5/3/02]

#### Sources Subject to Federal New Source Performance Standards (NSPS), Subpart A

- 10. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements.** The Permittee shall maintain records for Source ID(s) 1, 2, and 11, in accordance with 40 CFR 60.7(b).

[18 AAC 50.350(h), 5/3/02 & 18 AAC 50.040(a)(1), 8/15/02]  
[40 C.F.R. 60.7(b), Subpart A, 7/1/01]

- 11. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report.** For Source ID(s) 1 and 2 the Permittee shall comply with 40 CFR 60.7(c) and (d).

[18 AAC 50.350(i), 5/3/02 & 18 AAC 50.040(a)(1), 8/15/02]  
[40 C. F. R. 60.7(c) & (d), Subpart A, 7/1/01]

- 12. NSPS Subpart A Good Air Pollution Control Practice.** The Permittee shall, maintain and operate Source ID(s) 1, 2, and 11 in accordance with 40 CFR 60.11(d).

[18 AAC 50.040(a)(1), 8/15/02]  
[40 C.F.R. 60.11(d), Subpart A, 7/1/01]

- 13. NSPS Subpart A Credible Evidence.** The credible evidence rule of 40 CFR 60.11(g) applies to Source ID(s) 1 and 2.

[18 AAC 50.040(a)(1), 8/15/02]  
[40 C.F.R. 60.11(g), Subpart A, 7/1/01]

- 14. NSPS Subpart A Concealment of Emissions.** The Permittee shall not conceal emissions from Source ID(s) 1 and 2 as provided in 40 CFR 60.12. Monitoring shall consist of an annual certification that the Permittee does not conceal emissions.

[18 AAC 50.040(a)(1), 8/15/02]  
[40 C.F.R. 60.12, Subpart A, 7/1/01]

#### Storage Tanks Subject to NSPS Subpart Ka

- 15.** The Permittee shall not store in Source ID 11 a petroleum liquid with a true vapor pressure greater than 1.0 psia. Monitoring shall consist of an annual certification that the Permittee stored only Arctic Heating Fuel, Diesel Fuel, or Jet A in Source ID 11, or if other materials are stored in Source ID 11 that the true vapor pressure of the material stored is 1.0 psia or less.

[18 AAC 50.040(a)(2)(L), 8/15/02]  
[40 C.F.R. 60.110a, 60.115a(a) & 60.115a(d)(1), Subpart Ka, 7/1/01]

#### Turbines Subject to NSPS Subpart GG, Source ID(s) 1 & 2

- 16. NSPS Subpart GG Sulfur Standard.** The Permittee shall not allow the sulfur content of the fuel burned in Source ID(s) 1 and 2 to exceed 0.8 percent by weight.

[18 AAC 50.040(a)(2)(V), 8/15/02]  
[40 C.F.R. 60.333(b), Subpart GG, 7/1/01]

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16.1 Monitoring - Determine compliance monthly with the fuel sulfur content standard in this condition as follows:

[40 C.F.R. 60.335(d), Subpart GG, 7/1/01]

[EPA Alternative Monitoring Schedule, 7/13/93 (with additional correspondence dated 8/20/93, 10/18/93, and 8/19/96)]

[Alternative Monitoring Plan, 10/2/97]

- a. For gaseous fuels, determine the sulfur content of the fuel using ASTM D 4810-88, ASTM D 4913-89, Gas Producer's Association (GPA) method 2377-86, or an alternative analytical method approved by the Administrator.
- b. For liquid fuels, determine the sulfur content using ASTM D 2880-71, or an EPA approved alternative method.
- c. The fuel sulfur analysis required under this condition may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

[40 C.F.R. 60.335(e), Subpart GG, 7/1/01]

16.2 Recordkeeping - Keep records of analyses conducted as required by condition 16.1a.

16.3 The Permittee shall semi-annually report to the EPA results of all sulfur monitoring required by this condition.

[40 C.F.R. 60.334(c)(2), Subpart GG, 7/1/01]

16.4 Reporting- For the purpose of EEMSP reports and summary reports required under condition 11, the Permittee shall report in accordance with 40 C.F. R. 60.334(c)(2).

[18 AAC 50.350(i), 1/18/97]

[40 C.F.R. 60.334(c)(2), Subpart GG, 7/1/01]

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## **Section 6. Visible Emissions and PM Monitoring, Recordkeeping and Reporting**

### **Liquid Fuel-Fired Sources (Source ID(s) 1, 2, 7 through 10)**

- 17. Visible Emissions Monitoring.** The Permittee shall observe the exhaust of Source ID(s) 1, 2, and 7 through 10 for visible emissions using the Method 9 Plan under condition 17.1.

**17.1 Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

- a. First Method 9 Observation. For Source ID(s) 9 and 10, observe the exhaust for 18 minutes within six months after the effective date of this permit.
- b. Second Method 9 Observation. Observe exhaust while firing on liquid fuel per condition 17.1 within 30 days after the end of a calendar month in which the cumulative hours of operation on back-up liquid fuel for the past 12 consecutive months exceed 400, except when an 18-minute Method 9 observation has already been conducted in accordance with condition 17.1 in the same 12 consecutive month period and the source appears to not have excess visible emissions while in operation on liquid fuel.
- c. Third Method 9 Observation. Observe exhaust while firing on liquid fuel per condition 17.1 within 30 days after the end of a calendar month in which the cumulative hours of operation on liquid fuel for the past 12 consecutive month period exceed 800.
- d. Increased Method 9 Frequency. If a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that source to at least monthly intervals, until a six-minute average opacity observed during the most recent set of observations is not greater than 15 percent or no more than one observation is greater than 20 percent.

[18 AAC 50.335(j) & 50.350(g), 1/18/97 & 18 AAC 50.346(c), 5/3/02]

- 18. Visible Emissions Recordkeeping.** The Permittee shall keep records in accordance with this condition 18.

[18 AAC 50.350(h) & 50.346(c), 5/3/02]

**18.1** When conducting the Method 9 observations of condition 17

- a. the observer shall record
  - (i) the name of the facility, emissions source and location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet in Section 15;

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- (ii) the time, estimated distance to the emissions location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate) on the sheet at the time opacity observations are initiated and completed;
  - (iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;
  - (iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Record in Section 15, and
  - (v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period;
- b. to determine the six-minute average opacity, divide the observations recorded on the record sheet into sets of 24 consecutive observations; sets need not be consecutive in time and in no case shall two sets overlap; for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; record the average opacity on the sheet;
  - c. For Source ID(s) 1, 2, and 7 through 10 calculate and record the highest 18-consecutive-minute average observed.

**19. Visible Emissions Reporting.** The Permittee shall report visible emissions as follows:

[18 AAC 50.350(i), 1/18/97 & 50.346(c), 5/3/02]

19.1 include in each facility operating report under condition 59

- a. copies of the observation results (i.e. opacity observations), except for the observations the Permittee has already supplied to the Department; and
- b. a summary to include:
  - (i) number of days observations were made;
  - (ii) highest six-minute average observed; and
  - (iii) dates when one or more observed six-minute averages were greater than 20 percent;
- c. a summary of any monitoring or recordkeeping required under conditions 17 and 18 that was not done;



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19.2 report under condition 57:

- a. the results of Method 9 observations that exceed an average 20 percent for any six-minute period; and
- b. if any monitoring under condition 17 was not performed when required.

[18 AAC 50.346(c) & 50.350(g) – (i), 5/3/02]

**20. Particulate Matter Monitoring and Recordkeeping for Heaters Firing Liquid Fuel.**

The Permittee shall conduct source tests on Source ID(s) 7 and 8 when firing liquid fuel to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with this condition 20.

[18 AAC 50.346(c) & 50.350(g)-(h), 5/3/02]

20.1 Within six months of exceeding the criteria of condition 20.2, either

- a. conduct a PM source test according to requirements set out in Section 11; or
- b. make repairs so that emissions no longer exceed the criteria of condition 20.2; to show that emissions are below those criteria, observe emissions as described in condition 17 under load conditions comparable to those when the criteria were exceeded.

20.2 Conduct the test according to condition 20.1 if 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent.

20.3 During each one hour PM source test run, observe the exhaust for 18 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

20.4 The automatic PM source test requirement in conditions 20.1 and 20.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

**21. Particulate Matter Reporting for Heaters Firing Liquid Fuel.** The Permittee shall report as follows:

[18 AAC50.350(i) 1/18/97 & 50.346(c), 5/3/02]

21.1 report under condition 57

- a. the results of any PM source test that exceed the PM emissions limit; or
- b. if one of the criteria of condition 20.2 was exceeded and the Permittee did not comply with either condition 20.1a or 20.1b,

21.2 in each facility operating report under condition 59, include

- 
- a. the dates, Source ID(s), and results when an observed 18-minute average was greater than an applicable threshold in condition 20.2;
  - b. a summary of the results of any PM testing under condition 20; and
  - c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 20.2, if they were not already submitted.

[18 AAC 50.346(c) & 50.350(g)-(i), 5/3/02]

- 22. Particulate Matter Monitoring for Turbines and Engines firing Liquid Fuel.** The Permittee shall conduct source tests on liquid fuel-fired engines and turbines, Source ID(s) 1, 2, 9, and 10, to determine the concentration of particulate matter (PM) in the exhaust of a source in accordance with the following.

[18 AAC 50.350(g), 1/18/97 & 18 AAC 50.346(c), 5/3/02]

22.1 Within six months of exceeding the criteria of condition 22.2a or 22.2b, either

- a. conduct a PM source test according to requirements set out in Section 11; or
- b. make repairs so that emissions no longer exceed the criteria of condition 22.2; to show that emissions are below those criteria, observe emissions as described in condition 17.1 under load conditions comparable to those when the criteria were exceeded.

22.2 Conduct the test according to condition 22.1 if

- a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent, or
- b. for a source with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.

22.3 During each one-hour PM source test run, observe the exhaust for 18 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.

22.4 The automatic PM source test requirement in conditions 22.1 and 22.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

- 23. Particulate Matter Recordkeeping for Turbines and Engines firing Liquid Fuel.** Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameter(s) of Source ID(s) 1, 2, 9 and 10. Report the stack diameter(s) in the next facility operating report under condition 59.

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[18 AAC 50.350(h) & 50.346(c), 5/3/02]

**24. Particulate Matter Reporting for Turbines and Engines firing Liquid Fuel.** The Permittee shall report as follows:

24.1 report under condition 57

- a. the results of any PM source test that exceeds the PM emissions limit; or
- b. if one of the criteria of condition 22.2 was exceeded and the Permittee did not comply with either condition 22.1a or 22.1b;

24.2 report observations in excess of the threshold of condition 22.2b within 30 days of the end of the month in which the observations occur;

24.3 in each facility operating report under condition 59, include

- a. the dates, Source ID(s), and results when an observed 18-minute average was greater than an applicable threshold in condition 22.2;
- b. a summary of the results of any PM testing under condition 22; and
- c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of condition 22.2, if they were not already submitted.

[18 AAC 50.346(c) & 50.350(g) – (i), 5/3/02]

## **Section 7. Owner Requested Limits**

- 25.** The Permittee shall limit hours of operation in any consecutive 12-month period for Source ID(s) 1, 2, 9 and 10 as indicated in Table 3.

[18 AAC 50.350(f)(4), 1/18/97]

25.1 Monitor and record the monthly and consecutive 12-month period summation of operating hours for Source ID(s) 1, 2, 9, and 10.

25.2 Notify the Department in accordance with condition 57 whenever a source is operated beyond the limits in Table 3 for any given month.

25.3 Report the data recorded under condition 25.1 for each month and consecutive 12-month total hours operated each month of the reporting period using the facility operating report under condition 59.

[18 AAC 50.350(g) – (i), 1/18/97]

**Table 3 - Operating Hour Limits**

<b>Source ID(s)</b>	<b>Make/Model</b>	<b>Equipment Tag Number</b>	<b>Operating Hour Consecutive 12-Month Period Limits</b>	<b>Explanation</b>
<b>1 and 2</b>	Solar Centaur	NGT-11-1602 NGT-11-1603	500	During routine maintenance and testing
<b>9 and 10</b>	Cummins Emergency Fire Water Pump  GE Emergency Generator	FWP-11-15802  EDG-11-1601	200  200	

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## **Section 8. Insignificant Sources**

This section contains the requirements that the Permittee identified under 18 AAC 50.335(q)(2) as applicable to insignificant sources at the facility. This section also specifies the testing, monitoring, recordkeeping, and reporting for insignificant sources that the Department finds necessary to ensure compliance with the applicable requirements. Insignificant sources are not exempted from any air quality control requirement or federally enforceable requirement.

As set out in 18 AAC 50.350(m), the shield of AS 46.14.290 does not apply to these sources.

**26.** For sources at the facility that are insignificant as defined in 18 AAC 50.335(q)-(v) that are not listed in this permit, the following apply:

26.1 The Permittee shall submit the compliance certifications of condition 60 based on reasonable inquiry;

26.2 The Permittee shall comply with the requirements of condition 38;

26.3 The Permittee shall report in the facility operating report required by condition 59 if a source is insignificant because of historical because of actual emissions less than the thresholds of 18 AAC 50.335(r) and current actual emissions become greater than any of those thresholds.

26.4 No other monitoring, recordkeeping or reporting is required.

[18 AAC 50.346(b)(1), 5/3/02]

**27.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from an industrial process, fuel-burning equipment, or an incinerator to reduce visibility through the exhaust effluent by either

27.1 more than 20% for more than three minutes in any one hour<sup>2</sup>, or

[18 AAC 50.055(a)(1), 1/18/97, 40 CFR 52.70, 7/1/01]

27.2 more than 20% averaged over any six consecutive minutes.

[18 AAC 50.055(a)(1), 5/3/02]

**28.** The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1), 1/18/97]

**29.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c), 1/18/97]

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<sup>2</sup> See Footnote 1.

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## **Section 9. Generally Applicable Requirements**

- 30. NESHAPs Subpart A, Applicability Determination.** The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 CFR 63) in accordance with the procedures described in 40 CFR 63.1(b).

- 30.1 NESHAPs Subpart A, Recordkeeping.** The Permittee shall maintain records in accordance with §63.10(b)(3).

[40 C.F.R. 63.1(b) & 40 C.F.R. 63.10(b)(3), 4/5/02]  
[18 AAC 50.350(h), 5/3/02; 18 AAC 50.040(c)(1)(A) & 50.040(c)(1)(E), 6/1/02]

- 31. Asbestos NESHAP.** The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145 and 61.150 of Subpart M, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

[18 AAC 50.040(b)(3), 8/15/02 & 50.350(d)(1), 1/18/97]  
[40 C.F.R. 61, Subparts A & M, and Appendix A, 7/1/01]

- 32. Refrigerant Recycling and Disposal.** The Permittee shall comply with the applicable standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F. Applicable requirements include 40 CFR 82.154, 82.156, 82.161, 82.162, and 82.166.

[18 AAC 50.040(d) & 50.350(d)(1), 1/18/97]  
[40 C.F.R. 82, Subpart F, 7/1/01]

- 33. Good Air Pollution Control Practice.** The Permittee shall do the following for Source ID(s) 3 through 10:

- a. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- b. Keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format;
- c. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.030 & 50.346(b)(2), 5/3/02 & 18 AAC 50.350(f)(2)&(3), 1/18/97]

- 34. Dilution.** The Permittee shall not dilute emissions with air to comply with this permit. Monitoring shall consist of an annual certification that the Permittee does not dilute emissions to comply with this permit.

[18 AAC 50.045(a), 1/18/97]

- 35. Reasonable Precautions to Prevent Fugitive Dust.** The Permittee shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air when causing or permitting bulk materials to be handled, transported, or stored, or when engaging in an industrial activity or construction project. Monitoring shall consist of an annual certification that reasonable precautions were taken.

[18 AAC 50.346(c), 5/3/02; 18 AAC 50.045(d) & 50.335(g), 1/18/97 & 18 AAC 50.040(e), 8/15/02]

- 36. Stack Injection.** The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, unless approved in writing by the Department. Monitoring shall consist of an annual certification that the Permittee does not conduct stack injection at the facility.

[18 AAC 50.055(g), 1/18/97]

- 37. Open Burning.** The Permittee shall conduct any open burning at the facility in accordance with the requirements of 18 AAC 50.065. Monitoring shall consist of an annual certification that any open burning complied with 18 AAC 50.065.

[18 AAC 50.040(e), 7/21/01, 18 AAC 50.065, 7/21/01, 18 AAC 50.350(d)(1), 1/18/97]

- 38. Air Pollution Prohibited.** No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

[18 AAC 50.110, 5/26/72; 18 AAC 50.346(a)(2), 5/3/02; & 18 AAC 50.040(e), 8/15/02]

- 38.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to condition 57.
- 38.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the facility, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of condition 38.
- 38.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
- a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the facility have caused or are causing a violation of condition 38; or
  - b. the Department notifies the Permittee that it has found a violation of condition 38.
- 38.4 The Permittee shall keep records of
- a. the date, time, and nature of all emissions complaints received;
  - b. the name of the person or persons that complained, if known;
  - c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of condition 38; and
  - d. any corrective actions taken or planned for complaints attributable to emissions from the facility.

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38.5 With each facility operating report required under condition 59, the Permittee shall include a brief summary report which must include

- a. the number of complaints received;
- b. the number of times the Permittee or the Department found corrective action necessary;
- c. the number of times action was taken on a complaint within 24 hours; and
- d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

38.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the facility within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

[18 AAC 50.346(a)(2) & 50.350(g) - (i), 5/3/02]

**39. Technology-Based Emission Standard.** If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235, causes emissions in excess of a technology-based emission standard<sup>3</sup>, the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under condition 57 requires information on the steps taken to minimize emissions. The report required under condition 57 is adequate monitoring for compliance under this condition.

[18 AAC 50.235(a) & 50.350(f)(3), 1/18/97]

**40. Permit Renewal.** To renew this permit, the Permittee shall submit an application under 18 AAC 50.335 no sooner than **February 21, 2007** and no later than **February 21, 2008**

[18 AAC 50.335(a), 1/18/97]

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<sup>3</sup> *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.



## **Section 10. Facility-Wide Requirements**

### **Halon Prohibitions, 40 CFR 82**

- 41. Significant New Alternatives Policy Program.** The Permittee shall comply with the prohibitions set out in 40 CFR 82.174(b) through (d) (Protection of Stratospheric Ozone Subpart G) pertaining to substitute products for ozone-depleting compounds. Monitoring shall consist of an annual certification that the Permittee complies with these prohibitions.

[18 AAC 50.040(d), 8/15/02]  
[40 CFR 82.174 (b) - (d), 7/1/01]

- 42. Halon Emissions Reduction.** The Permittee shall comply with the prohibitions set out in 40 CFR 82.270(b) through (f) (Protection of Stratospheric Ozone Subpart H). Monitoring shall consist of an annual certification that the Permittee complies with these prohibitions.

[18 AAC 50.040(d), 8/15/02]  
[40 CFR 82.270 (b)-(f), 7/1/01]

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## **Section 11. General Source Testing and Monitoring Requirements**

- 43. Requested Source Tests.** In addition to any source testing explicitly required by the permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

[18 AAC 50.220(a), 1/18/97 & 18 AAC 50.345(a) & (k), 5/3/02]

- 44. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b) & 50.350(g), 1/18/97]

44.1 at a point or points that characterize the actual discharge into the ambient air; and

44.2 at the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

- 45. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

45.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) & 50.350(g), 1/18/97 & 18 AAC 50.040(a), 8/15/02]  
[40 C.F.R. 60, 7/1/01]

45.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b), 8/15/02, 18 AAC 50.220(c)(1)(B) & 50.350(g), 1/18/97]  
[40 C.F.R. 61, 7/1/01]

45.3 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c), 8/15/02, 18 AAC 50.220(c)(1)(C) & 50.350(g), 1/18/97]  
[40 C.F.R. 63, 4/5/02]

45.4 Source testing for reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9.

[18 AAC 50.030, 5/3/02, 18 AAC 50.220(c)(1)(D) & 50.350(g), 1/18/97]

45.5 Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(4), 8/15/02 & 18 AAC 50.220(c)(1)(E) & 50.350(g), 1/18/97]  
[40 C.F.R. 60, Appendix A, 7/1/01]

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- 45.6 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Method 201.  
[18 AAC 50.035(b)(2), 8/15/02; 18 AAC 50.220(c)(1)(F) & 50.350(g), 1/18/97]  
[40 C.F.R. 51, Appendix M, 7/1/99]
- 45.7 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.  
[18 AAC 50.040(c)(19), 5/3/02 & 18 AAC 50.220(c)(2) & 50.350(g), 1/18/97]  
[40 C.F.R. 63, Appendix A, Method 301, 4/5/02]
46. **Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).  
[18 AAC 50.220(c)(3), 18 AAC 50.350(g), 1/18/97 & 18 AAC 50.990(88), 5/3/02]
47. **Test Exemption.** The Permittee is not required to comply with conditions 49, 50 and 51 when the exhaust is observed for visible emissions.  
[18 AAC 50.345(a), 5/3/02]
48. **Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.  
[18 AAC 50.345(a) & (l), 5/3/02]
49. **Test Plans.** Except as provided in condition 47, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the source will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under condition 43 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.  
[18 AAC 50.345(a) & (m), 5/3/02]
50. **Test Notification.** Except as provided in condition 47, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.  
[18 AAC 50.345(a) & (n), 5/3/02]
51. **Test Reports.** Except as provided in condition 47, within 60 days after completing a source test, the Permittee shall submit two copies of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in condition 53. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.
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[18 AAC 50.345(a) & (o), 5/3/02]

- 52. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in conditions 4 and 28, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f) & 50.350(g), 1/18/97]

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## **Section 12. General Recordkeeping, Reporting, and Compliance Certification Requirements**

- 53. Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department and required under the permit by including the signature of a responsible official for the permitted facility following the statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete." Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal. When certifying a compliance certification, the official's signature must be notarized.

[18 AAC 50.205 and 50.350(b)(3) & (j), 1/18/97; and 18 AAC 50.345(a) & (j), 5/3/02]

- 54. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall send reports, compliance certifications, and other documents required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with condition 53.

[18 AAC 50.350(i), 1/18/97]

- 55. Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

[18 AAC 50.200 & 50.350(b)(3), 1/18/97; and 18 AAC 50.345(a) & (i) & 50.350(g) – (i), 5/3/02]

- 56. Recordkeeping Requirements.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.350(h), 5/3/02]  
[40 CFR 60.7(f), Subpart A, 7/1/01]

- 56.1 copies of all reports and certifications submitted pursuant to this section of the permit; and
- 56.2 records of all monitoring required by this permit, and information about the monitoring including:
  - a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;
  - b. sampling dates and times of sampling or measurements;
  - c. the operating conditions that existed at the time of sampling or measurement;

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- d. the date analyses were performed;
  - e. the location where samples were taken;
  - f. the company or entity that performed the sampling and analyses;
  - g. the analytical techniques or methods used in the analyses; and
  - h. the results of the analyses.

**57. Excess Emissions and Permit Deviation Reports.**

[18 AAC 50.35(a)(2), 50.240(c) & 50.350(i), 1/18/97 and 18 AAC 50.346(a)(3), 5/3/02]

57.1 Except as provided in condition 38, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
  - (i) emissions that present a potential threat to human health or safety; and
  - (ii) excess emissions that the Permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
  - (i) within 30 days of the end of the month in which the emissions or deviation occurs or is discovered, except as provided in conditions 57.1c(ii) and 57.1c(iii);
  - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under condition 57.1c(i); and
  - (iii) for failure to monitor, as required in other applicable conditions of this permit.

57.2 When reporting excess emissions, the Permittee must report using either the Department's on-line form, which can be found at [www.state.ak.us/dec/dawq/aqm/eeform.pdf](http://www.state.ak.us/dec/dawq/aqm/eeform.pdf), or, if the Permittee prefers, the form contained in Section 18 of this permit. The Permittee must provide all information called for by the form that is used.

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57.3 When reporting a permit deviation, the Permittee must report using either the Department's on-line form, which can be found at [www.state.ak.us/dec/dawq/aqm/eeform.pdf](http://www.state.ak.us/dec/dawq/aqm/eeform.pdf), or, if the Permittee prefers, the form contained in Section 18 of this permit. The Permittee must provide all information called for by the form that is used.

57.4 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c) & 50.350(i), 1/18/97 and 18 AAC 50.346(a)(3), 5/3/02]

**58. NSPS and NESHAP Reports.** The Permittee shall:

[18 AAC 50.040, 8/15/02 & 50.350(i)(2), 1/18/97; and 40 C.F.R. 60 & 61, 7/1/01]

58.1 attach to the facility operating report required by condition 59, copies of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10, unless copies have already been provided to the Department at the time submitted to EPA, and

58.2 upon request by the Department provide a copy of any EPA-granted waiver of the federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

**59. Operating Reports.** During the life of this permit, the Permittee shall submit to the Department an original and two copies of an operating report by April 30 for the period January 1 to March 31, by July 30 for the period April 1 to June 30, by October 30 for the period July 1 to September 30, and by February 14 for the period October 1 to December 31 of the previous year.

59.1 The operating report must include all information required to be in operating reports by other conditions of this permit.

59.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under condition 59.1, either

a. The Permittee shall identify

- (i) the date of the deviation;
- (ii) the equipment involved;
- (iii) the permit condition affected;
- (iv) a description of the excess emissions or permit deviation; and
- (v) any corrective action or preventive measures taken and the date of such actions; or

b. When excess emissions or permit deviations have already been reported under condition 57 the Permittee may cite the date or dates of those reports.

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59.3 The operating report must include a listing of emissions monitored under condition 17 which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report

- a. the date that additional monitoring or testing was triggered;
- b. the equipment involved;
- c. the permit condition affected; and
- d. the monitoring result which triggered the additional monitoring.

[18 AAC 50.346(b)(3), 5/3/02, 18 AAC 50.350(d)(4), 6/21/98, and 18 AAC 50.350(f)(3) & (i), 1/18/97]

**60. Annual Compliance Certification.** Each year by March 31, and for reporting periods following the effective date of this permit, the Permittee shall compile and submit to the Department an original and two copies of an annual compliance certification report as follows:

[18 AAC 50.350(j), 1/18/97]

60.1 For each permit term and condition set forth in Section 4 through Section 12, including terms and conditions for monitoring, reporting, and recordkeeping:

[18 AAC 50.350(d)(4), 6/21/98]

- a. certify the compliance status over the preceding consecutive 12-month period consistent with the monitoring required by this permit;
- b. state whether compliance is intermittent or continuous;
- c. briefly describe each method used to determine the compliance status; and
- d. notarize the responsible official's signature.

[18 AAC 50.205, 1/18/97 & 50.345(a) & (j), 5/3/02]

60.2 In addition, submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

[18 AAC 50.350(j), 1/18/97]



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**Section 13. Standard Conditions Not Otherwise Included in the Permit**

- 61.** The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
- 61.1 an enforcement action;
- 61.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or
- 61.3 denial of an operating-permit renewal application.  
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (c), 5/3/02]
- 62.** It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.  
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (d), 5/3/02]
- 63.** Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.  
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (e), 5/3/02]
- 64.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are
- 64.1 included and specifically identified in the permit; or
- 64.2 determined in writing in the permit to be inapplicable.  
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (b), 5/3/02]
- 65.** The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (f), 5/3/02]
- 66.** The permit does not convey any property rights of any sort, nor any exclusive privilege.  
[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (g), 5/3/02]
- 67.** The Permittee shall allow the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator to
- 67.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;
- 67.2 have access to and copy any records required by the permit;

- 
- 67.3 inspect any facility, equipment, practices, or operations regulated by or referenced in the permit; and
- 67.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

[18 AAC 50.350(b)(3), 1/18/97 & 18 AAC 50.345(a) & (h), 5/3/02]

## Section 14. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the facility application, this section of the permit contains the requirements determined by the Department not to be applicable to the Prudhoe Seawater Treatment Plant.

Table 4 identifies the sources that are not subject to the specified requirements at the time of permit issuance. Some of the requirements listed below may become applicable during the permit term due to an invoking event, even though the requirement is deemed inapplicable at the time of permit issuance.

68. If any of the requirements listed in Table 4 become applicable during the permit term, the Permittee shall comply with such requirements on a timely basis. The Permittee shall also provide appropriate notification to EPA, and apply for a construction permit or an operating permit revision, if necessary.

**Table 4 - Permit Shields Granted.**

Non Applicable Requirements	Reason for non-applicability
<b>Gas and Liquid fuel-fired Turbines GT 11-1602 &amp; GT 11-1603</b>	
40 CFR 60 Subpart A- General Provisions §60.8(a)-Performance Test (NO <sub>x</sub> ) 40 CFR 60 Subpart GG- Standards of Performance for NO <sub>x</sub> . §60.332 – Standards for NO <sub>x</sub> §60.335(b), (c)(1), (c)(3) – Test Methods and Procedures	Emergency gas turbines are exempt from §60.332(a) [§60.332(g)].
40 CFR 60 Subpart GG §60.334(a) – Monitoring of Operations §60.335(c)(2) – Test Methods and Procedures	Applies only to affected turbines equipped with water injection to control emissions of NO <sub>x</sub> . Source is not equipped with water injection to control emissions of NO <sub>x</sub> .
§60.334(b) – Monitoring of Operations (Fuel Nitrogen Only) §60.335(a) – Test Methods and Procedures	EPA Region X waived fuel-bound nitrogen monitoring for NSPS affected stationary gas turbines operated by BPX (ref. correspondence dated August 19, 1996).
40 CFR 60 Subpart A – General Provisions §60.7(a)(1), (2), & (3) – Notification and Recordkeeping (Initial Notification).	Obsolete requirements – completed as required.
§60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to “existing facilities”, as defined in 40 CFR 60.2.
40 CFR 63 Subpart YYYY- National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	Facility is not a major source of HAPs.
<b>Gas and Dual-Fired Heaters H-11-14401, H-11-14402, H-11-14403, H-11-14404, H-11-14405, and H-11-14406</b>	
40 CFR 60 Subpart D – Standards of Performance for Fossil Fuel-Fired Steam Generators	Heat input capacities below threshold (250 MMBtu/hr); and units not classified as Fossil-Fuel-Fired Steam Generators, as defined in subpart.
40 CFR 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units	Heat input capacities below threshold (250 MMBtu/hr); Units not classified as Electric Utility Steam Generating Units, as defined in subpart.

Non Applicable Requirements	Reason for non-applicability
40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to effective date of subpart (6/19/84).
40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to effective date of subpart (6/9/89).
40 CFR 63 Subpart DDDDD -National Emissions Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters	Facility is not a major source of HAPs.
<b>All IC Engines- FWP-11-15802 &amp; EDG-11-1601</b>	
40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Facility is not a major source of HAPs.
<b>Storage Tanks T-11-19401, T-11-19402, T-11-19601, T-11-19602 , T-11-19603, T-11-19701, T-11-19702, T-11-19703, T-11-19704 , T-11-19705 , T-11-19706, and T-11-19708</b>	
40 CFR 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel not storing a petroleum liquid, as defined in subpart; and/or vessel storage capacity below threshold (40,000 gallons); and/or vapor pressure of stored liquid below thresholds; and/or storage prior to custody transfer; and/or commenced construction after effective date (5/19/78), depending upon tank.
40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Vessel not storing a volatile organic liquid (VOL) or petroleum liquid, as defined in subpart; and/or vessel storage capacity below thresholds; and/or vapor pressure of stored liquid below thresholds; and/or storage prior to custody transfer; and/or commenced construction prior to effective date (7/23/84), depending upon tank.
<b>Storage Tanks T-11-19401, T-11-19402, T-11-19602 , T-11-19603, T-11-19701, T-11-19702, T-11-19703, T-11-19704 , T-11-19705 , T-11-19706, and T-11-19708</b>	
40 CFR 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel not storing a petroleum liquid, as defined in subpart; and/or vessel storage capacity below thresholds (40,000/420,000 gallons); and/or vapor pressure of stored liquid below thresholds; and/or petroleum or condensate storage prior to custody transfer; and/or commenced construction prior to or after effective dates (5/18/78 – 7/23/84), depending upon the tank.

Non Applicable Requirements	Reason for non-applicability
<b>Storage Tank T-11-19601</b>	
<p>40 CFR 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids</p> <p>§60.112a – Standard for volatile organic compounds (VOC)</p> <p>§60.113a - Testing and procedures</p> <p>§60.114a – Alternative means of emission limitation</p> <p>§60.115a – Monitoring of operations</p>	<p>TVP of petroleum liquid stored below §60.112a thresholds for equipment standards (1.5 psia) and §60.115a thresholds for monitoring of operations (1.0 psia). To maintain this permit shield, the permittee is required to annually certify that stored fuel(s) do not exceed 1.0 psia vapor pressure.</p>
<b>Facility-Wide</b>	
40 CFR 61 Subpart A – General Provisions	Requirements only apply to sources subject to any provisions of 40 CFR 61.
<p>40 CFR 61 Subpart M – National Emission Standard for Asbestos</p> <p>§61.142 – Standard for Asbestos Mills</p>	Facility is not an Asbestos Mill.
§61.143 – Standard for Roadways	Facility roadways not exposed to asbestos tailings or asbestos containing waste.
§61.144 – Standard for Manufacturing	Facility does not engage in any manufacturing operations using commercial asbestos.
§61.146 – Standard for Spraying	Facility does not spray apply asbestos containing materials.
§61.147 – Standard for Fabricating	Facility does not engage in any fabricating operations using commercial asbestos.
§61.148 – Standard for Insulating Materials	Facility does not install or reinstall, on any facility component, insulation material containing commercial asbestos.
§61.149 – Standard for Waste Disposal for Asbestos Mills	As applying to §61.142 (Asbestos Mills).
§61.151 – Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those facilities subject to §§61.142; 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating).
§61.152 – Standard for Air-Cleaning	Facility does not use air cleaning equipment.
§61.153 – Standard for Reporting	No reporting requirements apply for sources subject to §61.145 (demolition and renovation) [ref §61.153(a)].
§61.154 – Standard for Active Waste Disposal Sites	Facility not an active waste disposal site and does not receive asbestos containing waste material.
§61.155 – Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Facility does not process regulated asbestos containing material (RACM).

Non Applicable Requirements	Reason for non-applicability
<b>Activities subject to 40 CFR 61 Subpart M – Standard for Demolition and Renovation (§61.145)</b>	
40 CFR 61 Subpart A – General Provisions §61.05(a) – Prohibited Activities §61.07 – Application for Approval of Construction or Modification §61.09 – Notification of Startup	Owners or operators of demolition and renovation operations are exempt from the requirements of §§61.05(a), 61.07, and 61.09 [ref. 40 CFR 61.145(a)(5)].
§61.10 – Source Reporting and Waiver Request	Demolition and renovation operations exempt from §61.10(a) [ref. 40 CFR 61.153(b)]
§61.13 – Emission Tests §61.14 – Monitoring Requirements	Emission test or monitoring is not required under the standards for demolition and renovation [§61.145].
<b>All Storage Tanks</b>	
40 CFR 63 Subpart OO – National Emission Standards for Tanks – Level 1	Provisions only apply to tanks affected by 40 CFR 60, 61, or 63 that specifically reference 40 CFR 63 Subpart OO.
40 CFR 63 Subpart SS – National Emission Standards for Closed Vent Systems	Provisions only apply to tanks affected by 40 CFR 60, 61, or 63 that specifically reference 40 CFR 63 Subpart SS.
<b>Drain Systems</b>	
40 CFR 63 Subpart RR – National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 CFR 60, 61, or 63 that specifically reference 40 CFR 63 Subpart RR.
<b>Facility-Wide</b>	
40 CFR 61 Subpart V – National Emission Standard for Equipment Leaks ( Fugitive Emission Sources)	No process components in volatile hazardous air pollutant (VHAP) service, as defined by subpart (≥10 percent VHAP by weight).
40 CFR 63 Subpart A – General Provisions [except §63.1(b) and §63.10(b)(3)]	Requirements only apply to sources subject to any provision of 40 CFR 63. This facility is subject to 40 CFR 63 Subpart §63.1(b) -the requirement to determine rule applicability and §63.10(b) - to keep records of rule applicability determinations.
40 CFR 63 Subpart B -Requirements for Control Technology Determinations for Major Sources in accordance with Clean Air Act, Sections 112(g) and 112(j)	Facility is not a major source of HAPs.
40 CFR 63 Subpart HH -National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities	Facility does not produce oil or natural gas and is not a major source of HAPs.
40 CFR 63 Subpart HHH -National Emission Standards for Hazardous Air Pollutants for Natural Gas Transmission and Storage Facilities	Facility is not a natural gas transmission or storage facility and is not a major source of HAPs.
40 CFR 63 Subpart T – National Emission Standards for Halogenated Solvent Cleaning	Facility does not operate halogenated solvent cleaning machines.

<b>Non Applicable Requirements</b>	<b>Reason for non-applicability</b>
40 CFR 64 – Compliance Assurance Monitoring	The facility does not use a control device to achieve compliance with any emission limitation or standard.
40 CFR 68 – Accidental Release Prevention Requirements: Risk Management Programs [§112(r)]	Under 40 CFR 68.10(a), the chemical accident prevention provisions of Part 68 do not apply to stationary sources with less than threshold quantities of regulated substances in a process.
40 CFR 82.1 Subpart A – Production and consumption controls	Facility does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
40 CFR 82.30 Subpart B -Servicing of Motor Vehicle Air Conditioners	Facility does not service motor vehicle air conditioners.
40 CFR 82.60 Subpart C – Ban on Nonessential Products containing Class I Substances and Ban on Nonessential Products containing or Manufactured with Class II Substances	Facility is not a manufacturer or distributor of Class I and II products or substances.
40 CFR 82.80 Subpart D – Federal Procurement	Subpart applies only to Federal departments, agencies, and instrumentalities.
40 CFR 82.100 Subpart E – The Labeling of Products Using Ozone-Depleting Substances	Facility is not a manufacturer or distributor of Class I and II products or substances.
40 CFR 82.158 Subpart F – Recycling and Emission Reductions	Facility does not manufacture or import recovery and recycling equipment.
40 CFR 82.160 Subpart F– Approved Equipment Testing Organizations	Facility does not contract equipment testing organizations to certify recovery and recycling equipment.
40 CFR 164 Subpart F – Reclaimer Certification	Facility does not sell reclaimed refrigerant.
40 CFR 82, Subpart F, Appendix C – Method for Testing Recovery Devices for Use With Small Appliances	Facility is not a third part entity that certifies recovery equipment.
40 CFR 82, Subpart F, Appendix D- Standards for Becoming a Certifying Program for Technicians	Facility does not have a technician certification program.
40 CFR 82 Subpart G – Significant New Alternatives Policy Program: Prohibitions (40 CFR 82.174(a))	Facility does not manufacture substitute chemicals or products for ozone-depleting compounds.
40 CFR 82.270(a) Subpart H – Halon Emissions Reduction	Facility does not manufacture halon.
18 AAC 50.201 – Ambient Air Quality Investigation	This requirement is not applicable until such time as the Department requests an ambient air quality investigation.

[18 AAC 50.350(l), 1/18/97]

## Section 15. Visible Emissions Forms

### Visible Emissions Field Data Sheet

Certified Observer: \_\_\_\_\_

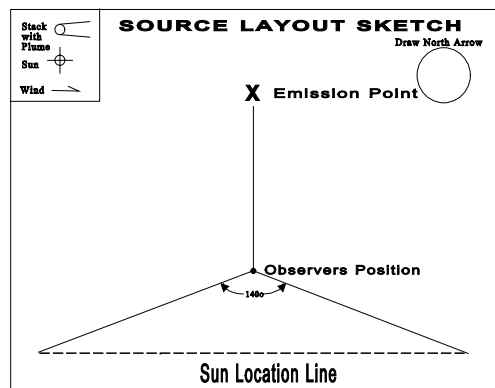
Company: \_\_\_\_\_

Location: \_\_\_\_\_

Test No.: \_\_\_\_\_ Date: \_\_\_\_\_

Source: \_\_\_\_\_

Operating Rate: \_\_\_\_\_



Clock Time	Initial				Final
Observer location					
Distance to discharge					
Direction from discharge					
Height of observer point					
Background description					
Weather conditions					
Wind Direction					
Wind speed					
Ambient Temperature					
Relative humidity					
Sky conditions: (clear, overcast, % clouds, etc.)					
Plume description:					
Color					
Distance visible					
Water droplet plume? (Attached or detached?)					
Other information					



## Page \_\_\_\_ of \_\_\_\_

Certified

## Clock Time & Date

[illegible]

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Observer Signature/Date

Certified By/Date

Duration of Observation Period (minutes) \_\_\_\_\_ Duration Required by Permit (minutes) \_\_\_\_\_  
 Number of Observations exceeding 20% \_\_\_\_\_ Number of Observations \_\_\_\_\_  
 In Compliance with Three Minute Aggregate Opacity Limit? (yes or no) \_\_\_\_\_  
 Highest Six Minute Average Opacity (%) \_\_\_\_\_  
 In Compliance with Six Minute Opacity Limit? (yes or no) \_\_\_\_\_

Test Number	Time Start—End	Sum	Average

## Section 16. SO<sub>2</sub> Material Balance Calculation

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO<sub>2</sub> using the following equations:

$$A = 31,200 \times [\text{wt}\%S_{\text{fuel}}] = 31,200 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$B = 0.148 \times [\text{wt}\%S_{\text{fuel}}] = 0.148 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$C = 0.396 \times [\text{wt}\%C_{\text{fuel}}] = 0.396 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$D = 0.933 \times [\text{wt}\%H_{\text{fuel}}] = 0.933 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$E = B + C + D = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$F = 20.9 - [\text{vol}\%_{\text{dry}}O_{2, \text{exhaust}}] = 20.9 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$G = [\text{vol}\%_{\text{dry}}O_{2, \text{exhaust}}] \div F = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$H = 1 + G = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$I = E \times H = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\text{SO}_2 \text{ concentration} = A \div I = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ ppm}$$

The wt%S<sub>fuel</sub>, wt%C<sub>fuel</sub>, and wt%H<sub>fuel</sub> are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to condition 5.2. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%<sub>dry</sub>O<sub>2, exhaust</sub>) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%S<sub>fuel</sub> = 1.0%, then enter 1.0 into the equations, not 0.01, and if vol%<sub>dry</sub>O<sub>2, exhaust</sub> = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c), 5/3/02]

### **Section 17. Emission Factors**

Use the emission factors in Table 5 to calculate the annual emission rates for condition 6.

**Table 5 - Emission Factors**

<b>Equipment</b>	<b>NO<sub>x</sub></b>	<b>CO</b>
<b>Heaters, Source ID(s) 3 through 8</b>	Allowable emission rate or representative source test data if less than allowable rate	Allowable emission rate or representative source test data if less than allowable rate

## Section 18. ADEC Notification Form

Fax this form to: (907) 269-7508 Telephone: (907) 269-8888

**BP Exploration (Alaska) Inc.**

Company Name

**Prudhoe Seawater Treatment Plant**

Facility Name

### Reason for notification:

☐ **Excess Emissions**

*If you checked this box*

*Fill out section 1*

☐ **Other Deviation from Permit Condition**

*If you checked this box*

*fill out section 2*

When did you discover the Excess Emissions or Other Deviation:

Date: \_\_/\_\_/\_\_ Time:\_\_:\_\_

## Section 1. Excess Emissions

### (a) Event Information (Use 24-hour clock):

	START Time: (hr:min):	END Time:	Duration
Date: _____	_____:	_____:	_____:
Date: _____	_____:	_____:	_____:
		<b>Total:</b>	_____:

### (b) Cause of Event (Check all that apply):

☐ START UP      ☐ UPSET CONDITION      ☐ CONTROL EQUIPMENT  
☐ SHUT DOWN      ☐ SCHEDULED MAINTENANCE      ☐ OTHER \_\_\_\_\_

*Attach a detailed description of what happened, including the parameters or operating conditions exceeded.*

### (c) Sources Involved:

*Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.*

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

### (d) Emission Limit Potentially Exceeded

*Identify each emission standard potentially exceeded during the event. Attach a list of ALL known or suspected injuries or health impacts. Identify what observation or data prompted this report. Attach additional sheets as necessary.*

Permit Condition	Limit	Emissions Observed
_____	_____	_____
_____	_____	_____

### (e) Excess Emission Reduction:

*Attach a description of the measures taken to minimize and/or control emissions during the event.*

---

**(f) Corrective Actions:**

*Attach a description of corrective actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence.*

**(g) Unavoidable Emissions:**

*Do you intend to assert that these excess emissions were unavoidable?*

☐ YES      ☐ NO

*Do you intend to assert the affirmative defense of 18 AAC 50.235?*

☐ YES      ☐ NO

**Section 2. Other Permit Deviations**

**(a) Sources Involved:**

*Identify each emission source involved in the event, using the same identification number and name as in the permit. List any control device or monitoring system affected by the event. Attach additional sheets as necessary.*

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**(b) Permit Condition Deviation:**

*Identify each permit condition deviation or potential deviation. Attach additional sheets as necessary.*

Permit Condition	Potential Deviation
_____	_____
_____	_____
_____	_____

**(c) Corrective Actions:**

*Attach a description of actions taken to correct the deviation or potential deviation and to prevent recurrence.*

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

---

Printed Name:

Signature:

Date:

**Alaska Department of Environmental Conservation**

**Air Permits Program**

**June 6, 2003**

BP Exploration (Alaska) Inc.

Prudhoe Seawater Treatment Plant

**STATEMENT OF BASIS**

**of the terms and conditions for**

**Permit No. 271TVP01**

**Prepared by Scott Bailey**

---

## INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating/Construction Permit No. 271TVP01.

## FACILITY IDENTIFICATION

The facility is operated by BP Exploration (Alaska) Inc. BP Exploration (Alaska) Inc. (BPXA) is the Permittee for the facility's operating permit. BPXA Prudhoe Seawater Treatment Plant (STP) is an existing oil and gas production support facility which consists of two dual-fired Solar Centaur combustion turbines, four Lummus natural gas-fired heaters, two Lummus dual fuel fired heaters, one 187 hp Cummins liquid fuel-fired emergency firewater pump and one liquid fuel-fired GE 3600 hp emergency electric generator.

Section 1 contains information on the facility as provided in the Title V operating permit application.

Water flood of an oil producing reservoir maintains oil production rates and thereby increases the amount of recoverable oil from the field. The source of water for water flooding at Prudhoe Bay is the STP. At the Prudhoe STP, sea water is pumped from the Beaufort Sea, strained and filtered, chlorinated, deaerated to remove oxygen, and then pumped to the Seawater Injection Plant in the Eastern Operating Area (SIPE) of the Prudhoe Bay Unit. The Prudhoe STP has the capacity to treat 2.2 million barrels of sea water per day.

The fuel gas used in all gas-fired equipment at the Prudhoe STP is supplied by the Central Gas Facility. The Solar Centaur turbines use diesel fuel only on start-up and in case of emergencies.

There are a number of emergency systems employed at the Prudhoe STP. Two dual fuel-fired turbines provide electrical power should primary electrical service be lost. The emergency power is typically used to drive process safety and life support systems. A diesel driven emergency fire water pump provides back-up fire water supply in the event electrical power is lost to the primary electrically driven fire water pump and the electric jockey pumps.

## SOURCE INVENTORY AND DESCRIPTION

Table 1 of Operating Permit No. 271TVP01 contains information on the sources at the facility as provided in the application. Table 1 describes the sources regulated by the permit. The table is provided for information and identification purposes only. Specifically, the source rating/size provided in the table does not create an enforceable limit.

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## EMISSIONS

A summary of the potential to emit (PTE)<sup>4</sup> from Prudhoe Seawater Treatment Plant is shown in the table below.

**Table A - Emissions Summary, in Tons Per Year (TPY)**

Pollutant	NO <sub>x</sub>	CO	PM-10	SO <sub>2</sub>	VOC	HAPS	Total
PTE	395	280	35	28	25	(13.4)	763
Assessable PTE	395	280	35	28	25	-	763

The assessable PTE listed under condition 1 is the sum of the emissions of each individual regulated air contaminant for which the facility has the potential to emit quantities greater than 10 tpy.

Hazardous Air Pollutants (HAPS) were calculated using GRI-HAPCalc Version 3.01 software and AP-42 emission factors. Each individual HAP has a PTE less than 10 TPY; the aggregated HAP total emission rate is 13.4 TPY. The highest individual HAP is n-hexane with an emission rate of 8 TPY. Assessable HAPS emissions are included as part of the Volatile Organic Compounds (VOCs).

## BASIS FOR REQUIRING AN OPERATING PERMIT

Section 2 of Operating Permit No. 271TVP01 includes a description of the regulatory classifications of Prudhoe Seawater Treatment Plant. This facility is classified as a Prevention of Significant Deterioration (PSD) Major Facility, as defined in 18 AAC 50.300(c)(1), because it has the potential to emit 250 TPY or more of a regulated air contaminant in an area classified as attainment or unclassifiable. As defined by 18 AAC 50.300(b)(2), STP is a facility containing fuel burning equipment with a rated capacity of 100 million Btu per hour or more. As defined by 18 AAC 50.325(b)(1), STP is a facility that emits or has the potential to emit 100 TPY or more of a regulated air contaminant. As defined by 18 AAC 50.325(b)(3), STP is a facility containing a source subject to the standards adopted by reference in 18 AAC 50.040(a)(1), 18 AAC 50.040(a)(2)(L), 18 AAC 50.040(a)(2)(V) and 18 AAC 50.040(d). As defined by 18 AAC 50.325(c), STP is a facility containing a source subject to the standards adopted by reference in 18 AAC 50.300(b)-(e) because it is within the category of facilities subject to AS 46.14.130(b)(4).

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<sup>4</sup>*Potential to Emit or PTE* means the maximum quantity of a release of an air contaminant, considering a facility's physical or operational design, based on continual operation of all sources with the facility for 24 hours a day, 365 days a year, reduced by the effect of pollution control equipment and approved state or federal limitations on the capacity of the facility's sources or the facility to emit an air contaminant, including limitations such as restrictions on hours or rate of operation and type or amount of material combusted, stored, or processed, as defined in AS 46.14.990(21), Effective 1/18/97

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Alaska regulations require operating permit applications to include identification of “regulated sources.” As applied to Prudhoe Seawater Treatment Plant, the state regulations require a description of:

- ⇒ Each source regulated by a standard in 18 AAC 50.055, Industrial Processes and Fuel Burning Equipment, under 18 AAC 50.335(e)(4)(C);
- ⇒ Each source subject to a standard adopted by reference in 18 AAC 50.040 under 18 AAC 50.335(e)(2); and
- ⇒ Sources subject to requirements in an existing department permit 18 AAC 50.335(e)(5).

The emission sources at Prudhoe Seawater Treatment Plant classified as “regulated sources” according to the above department regulations are listed in Table 1 of Operating Permit No. 271TVP01.

## **CURRENT AIR QUALITY PERMITS**

### **Previous Air Quality Permit to Operate**

The most recent permit issued for this facility is Permit-to-Operate number 9473-AA014. This permit-to-operate includes all construction authorizations issued through January 16, 1997, since it was issued before January 18, 1997.

### **Title V Operating Permit Application History**

The owner or operator submitted an application on December 5, 1997. Three certified amendments to the application were submitted to the Department, one each on January 20 and April 28, 1998, and February 20, 2003.

## **COMPLIANCE HISTORY**

The facility has operated at its current location since 1983. A review of the state’s compliance database indicates that for the years 2000 - 2002 all of the facility operating reports (except for the latest quarterly report dated 12/31/02) have been reviewed by ADEC staff and show the facility to be in compliance. The last facility inspection by ADEC staff conducted June 7, 2001 reported no instances of non-compliance. In addition, a review of the excess emissions database for the years 2000-2002 indicate no black smoke events.

## **FACILITY-SPECIFIC REQUIREMENTS CARRIED FORWARD**

State of Alaska regulations in 18 AAC 50.350(d)(1)(D) require that an operating permit include each facility-specific requirement established in a prior operating permit. Table B lists the operating permit conditions that established a facility-specific requirement in Permit No. 9473-AA003, Amendment #2 and the new conditions in Operating/Construction Permit No. 271TVP01 that carry the old requirements into the new permit.

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**Table B- Comparison of Pre-January 18, 1997 Permit No. 9473-AA014  
and Conditions carried into Operating/Construction Permit No. 271TVP01 Conditions<sup>5</sup>**

<b>Permit No. 9473-AA014, Amendment #2 Condition number</b>	<b>Description of Requirement</b>	<b>Permit No. 271TVP01 Condition Number</b>	<b>How condition was revised</b>
2 and Exhibit B	Comply with applicable emission stds., limits and specs in 18 AAC 50.050 and Exhibit B	3, 4, 5, 6	Carried forward the updated construction permit limits established in Tables E, F, and G in this Statement of Basis.
4 and Exhibit C	Conduct monthly H <sub>2</sub> S testing of fuel gas burned per Exhibit C.	5.1, 16.1	Same information
5 and Exhibit C	Test liquid fuel sulfur content per Exhibit C.	5.2, 16.1	Same information
6 and Exhibit D	Calculate total SO <sub>2</sub> emitted each month from facility based on conditions 4 & 5 and report the result in the facility operating report.	None	Condition has been deleted. Reason for original permit condition is no longer valid. Potential increase of fuel gas sulfur content not considered a PSD modification.
14	Submit quarterly facility operating reports	59	Same information
16	Submit 18 AAC 50.110 showing by 11/30/95.	None	Requirement rescinded by Dept. 4/28/95
Exhibit C	Monitoring requirements for fuel gas and liquid fuel for sulfur content	5, 16.1	Same information
Item 3, Exhibit D	Report operating time and fuel consumption.	7, 8	Same information
Items 4 and 5, Exhibit D	Report the high, low, mean, and standard deviation of the fuel gas H <sub>2</sub> S and liquid fuel sulfur content annually.	None	Condition has been deleted. The Department no longer requires this information.

### **REVISIONS MADE TO AIR QUALITY PERMIT-TO-OPERATE 9473-AA014**

BPXA submitted a construction permit application under provisions of 18 AAC 50.305(a)(3) requesting modifications of the terms and conditions of former Operating Permit 9473-AA014. BPXA submitted the application to revise or rescind existing permit conditions that are either: 1) in error; 2) do not correctly reflect applicable requirements; 3) are out dated; or 4) are otherwise inappropriate. The current permit was issued under former regulations 18 AAC 50.400. Under the provisions of 18 AAC 50.305(a)(3), the owner or operator of a facility may request Department approval in a construction permit to revise or rescind conditions of a permit issued under former 18 AAC 50.400.

On December 5, 1997, ARCO Alaska, Inc. [ARCO was the operator of the facility in 1997 so the application was submitted under their name. BPXA is the current operator of the facility and the application has been transferred to their name. BPXA will be identified as the applicant for the remainder of this document.] submitted a construction permit application requesting revisions to operating permit No. 9473-AA014 for the STP, along with the Title V operating permit

<sup>5</sup> This table does not include all standard and general conditions.

application for the facility. BPXA proposed that terms and conditions in the old operating permit be updated and made identical with the PSD permits, numbers PSD-X79-05 (PSD I), PSD-X80-09 (PSD II), PSD-X81-01 (PSD III), and PSD-X81-13 (PSD IV), recently revised by the EPA on August, 29 1997. Specifically, revisions made by EPA to the PSD-X81-01 (PSD III) permit are relevant to the STP.

EPA Region 10 issued PSD permits to BPXA [actually Atlantic Richfield and Sohio Petroleum Companies, the field operators at that time] for construction of new equipment at eight Prudhoe Bay facilities. BPXA has worked with EPA to clarify and revise emission limits in the EPA PSD permits. ADEC has been copied on all correspondence with Region 10 in this regard. This effort resulted in issuance by EPA on August 29, 1997, of revisions to the EPA PSD permits. A copy of the permit revisions is included with the Permittee's application. The primary revisions include identification of specific equipment and tag number, apportionment of field-wide ton per year limits to facility-specific equipment group limits, and updating emission limits based solely on AP-42 factors to the values in the current edition of AP-42.

The construction permit application requests that each current EPA BACT emission limit be established as the current limit in the ADEC permit for the facility.

The permit revision process with EPA was similar to this request in that approval was not sought for any new construction or modification. As part of the EPA process, BPXA demonstrated to Region 10 that on a ton per year basis an over all decrease in allowable emissions would occur under the permit revision.

In general, ADEC has sought to include in operating permits it has issued under the prior 18 AAC 50.400, emission limits corresponding to the BACT limits established by EPA. In many instances however, limits have been applied to equipment which in fact was grand fathered and installed prior to the PSD program. In some instances, ADEC has also established an emission limit, not via a PSD modification, which has a different value than the EPA BACT limit.

The requested revisions to Exhibit B of the current permit reflect the BACT emission limits established by EPA which are contained within the August 29, 1997 EPA permit revision for Prudhoe Bay facilities.

Exhibit B of permit 9473-AA014 does not always indicate whether the ton per year values listed by pollutant for each source are estimates or enforceable limits. BPXA has clarified with EPA the correct ton per year emission limits established as BACT limits. Equipment that was permitted under the PSD process by EPA should have ton per year emission limits. The correct emission limits are shown in the August 29, 1997 EPA permit revision. BPXA requested that each ton per year limit established by EPA be incorporated into the Title V operating permit.

EPA has agreed with BPXA that if equipment permitted by EPA has subsequently been limited by ADEC more stringently, the EPA limit is then superseded. BPXA has requested revisions for the Solar Centaur to remove emission limits and proposed the turbines have a non-emergency operational limitation of 500 hours per year each. As such, even though the turbines were initially permitted by EPA under PSD III, the EPA limits are superseded and the equipment is not contained in the August 29, 1997 EPA permit revision. In any case, BPXA has determined this equipment pre-dates the PSD permit program and has no BACT emission limits that apply. The NO<sub>x</sub>, CO and SO<sub>2</sub> limits have been removed.

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BPXA requested revisions for the Lummus heaters. These six heaters have an operational capacity of 156 MMBtu/hr each instead of the previously listed 132 MMBtu/hr. BPXA requested group ton per year limits which reflect the group emissions for this equipment. BPXA also requested the short-term CO emission limit of 0.018 lb/MMBtu be revised to 0.061 lb/MMBtu. The current limit is based on a factor from AP-42 (not based on installation of control equipment) and the requested limit reflects the emission factor from the edition of AP-42 that was current at the time of the permit application. EPA granted this same request for all turbines in the August 29, 1997 EPA permit revision.

BPXA also requested changes for the Cummins fire water pump and EMD emergency generator sources. Permit 9473-AA014 has no limits for this equipment. BPXA has requested revisions for these sources and proposed they have a non-emergency operational limitation of 200 hours per year each.

BPXA requested that any current emission limit or fuel specification limiting the concentration of H<sub>2</sub>S or sulfur in fuel be changed to an emission estimate only. This is primarily in recognition of the fact that there is no ADEC regulation that contains any such restriction. In addition, BPXA has not been required to maintain this type of restriction in order to assure compliance with any SO<sub>2</sub> ambient standard or increment and an SO<sub>2</sub> BACT limit has never been established for any emissions unit at the Prudhoe STP by EPA or ADEC. BPXA is not requesting to remove any existing H<sub>2</sub>S or sulfur in fuel testing or reporting that is required in order for ADEC to continue to have this information.

Finally, BPXA requested that ADEC add the requirement of the EPA PSD III permit (PSD-X81-01) to conduct CO or O<sub>2</sub> monitoring of the Lummus heaters in accordance with the monitoring plan approved by the Department on April 18, 1995. This requirement has been added to the permit (condition 9), as requested.

Table C below identifies the source inventory corrections and updates made to Operating Permit No. 9473-AA014.

**Table C – Source Inventory Revisions**

<b>Equipment Tag No.</b>	<b>Current Permit Rating</b>	<b>New Revised Rating</b>	<b>Explanation</b>
NGH-11-14401	132.6 MMBtu/hr	156 MMBtu/hr	New Information. Revised ratings reflect maximum design values
NGH-14-14402	132.6 MMBtu/hr	156 MMBtu/hr	
NGH-14-14403	132.6 MMBtu/hr	156 MMBtu/hr	
NGH-14-14404	132.6 MMBtu/hr	156 MMBtu/hr	
NGH-14-14405	132.6 MMBtu/hr	156 MMBtu/hr	
NGH-14-14406	132.6 MMBtu/hr	156 MMBtu/hr	

**Equipment emission limits requested by BPXA.** All emission limitations are annual average unless otherwise noted. All turbine NO<sub>x</sub> emission limits and estimates refer to full load, ISO conditions. All other emission limits and estimates refer to full load, standard conditions.

Table D identifies the operational limits requested by BPXA and established in Operating/Construction Permit No. 271TVP01

**Table D - Equipment operational limits requested by BPXA.**

<b>Tag No.</b>	<b>Description</b>	<b>Operating Limit</b>
NGT-11-1602	Solar Centaur Emergency Generator	500 hours/year (non-emergency use)
NGT-11-1603	Solar Centaur Emergency Generator	500 hours/year (non-emergency use)
FWP-11-15802	Cummins Emergency Fire Water Pump	200 hours/year (non-emergency use)
EDG-11-1601	GE Emergency Generator	200 hours/year (non-emergency use)

The following Tables E, F, and G , identify and explain the revisions made to Operating Permit No. 9473-AA014.

**Table E – Sources: Solar Centaur Turbines Tag Nos. NGT-11-1602 and NGT-11-1603**

<b>Pollutant</b>	<b>Source (Make/Model)</b>	<b>Limits in AQCP to Operate 9473-AA014</b>	<b>Revised Limits</b>	<b>Explanation</b>
<b>NO<sub>x</sub></b>	Solar Centaur Turbines NGT-11-1602 & NGT-11-1603	150 (14.4/Y) ppm and 102 tons per year	No limit	These units are for emergency use only and did not receive BACT limits through the PSD permit review.
<b>CO</b>	Solar Centaur Turbines NGT-11-1602 & NGT-11-1603	109 lb/MMscf	No limit	These units are for emergency use only and did not receive BACT limits through the PSD permit review.
<b>PM</b>	Solar Centaur Turbines NGT-11-1602 & NGT-11-1603	No limit	No limit	
<b>SO<sub>2</sub></b>	Solar Centaur Turbines NGT-11-1602 & NGT-11-1603	25 ppm H <sub>2</sub> S in fuel	No limit	No BACT or other limit applies to fuel. No limits are necessary to manage increment given current fuel gas quality.

Pollutant	Source (Make/Model)	Limits in AQCP to Operate 9473-AA014	Revised Limits	Explanation
Opacity	Solar Centaur Turbines  NGT-11-1602 & NGT-11-1603	10%	20%, consecutive 6-minute average	These units are for emergency use only and did not receive BACT limits through the PSD permit review. New limit is the SIP limit.

**Table F – Sources: Lummus Heaters Tag Nos. NGH-11-14401, NGH-11-14402, NGH-11-14403, NGH-11-14404, NGH-11-14405, NGH-11-14406**

Pollutant	Source (Make/Model)	Limits in AQCP to Operate 9473-AA014	Revised Limits	Explanation
NO <sub>x</sub>	Lummus Heaters  NGH-11-14401, NGH-11-14402, NGH-11-14403, NGH-11-14404, NGH-11-14405, & NGH-11-14406	0.08 lb/MMBtu and 109.7 tons per year	0.08 lb/MMBtu and 61 tons per year, each unit	EPA PSD III BACT via SWAP IV and 8/29/97 permit revision.
CO	Lummus Heaters  NGH-11-14401, NGH-11-14402, NGH-11-14403, NGH-11-14404, NGH-11-14405, & NGH-11-14406	0.018 lb/MMBtu	0.061 lb/MMBtu and 46 tons per year, each unit	EPA PSD III BACT via SWAP IV and 8/29/97 permit revision.
PM	Lummus Heaters  NGH-11-14401, NGH-11-14402, NGH-11-14403, NGH-11-14404, NGH-11-14405, & NGH-11-14406	No limit	No limit	

Pollutant	Source (Make/Model)	Limits in AQCP to Operate 9473-AA014	Revised Limits	Explanation
SO <sub>2</sub>	Lummus Heaters  NGH-11-14401, NGH-11-14402, NGH-11-14403, NGH-11-14404, NGH-11-14405, & NGH-11-14406	25 ppm H <sub>2</sub> S in fuel	No limit	No BACT or other limit applies to fuel. No limits are necessary to manage increment given current fuel gas quality.
Opacity	Lummus Heaters  NGH-11-14401, NGH-11-14402, NGH-11-14403, NGH-11-14404, NGH-11-14405, & NGH-11-14406	20%	5%, consecutive 6-minute average  20%, consecutive 6-minute average	EPA PSD III BACT via SWAP IV and 8/29/97 permit revision.  Alaska SIP.

**Table G – Sources: Emergency Fire Water Pump Tag No. FWP-11-15802 and Emergency Generator Tag No. EDG-11-1601**

Pollutant	Source (Make/Model)	Limits in AQCP to Operate 9473-AA014	Revised Limits	Explanation
SO <sub>2</sub>	Cummins FWP-11-15802 & GE Emergency Generator EDG –11-1601	0.5% S in fuel	No limit	No BACT or other limit applies to fuel. No limits are necessary to manage increment given current fuel gas quality.

## STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The state and federal regulations for each condition are cited in Operating/Construction Permit No. 271TVP01.

### Conditions 1 and 2, Emission Fees

**Applicability:** The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

**Factual Basis:** These standard conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

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The default assessable emissions are emissions of each air contaminant authorized by the permit (AS 46.14.250(h)(1)(A)). Air contaminant means any regulated air contaminant and any hazardous air contaminant. Therefore, assessable emissions under AS 46.14.250(h)(1)(A) means the potential to emit any air contaminant identified in the permit, including those not specifically limited by the permit. For example, hydrogen chloride (HCl) emissions from an incinerator are assessable emissions because they are a hazardous air contaminant, even if there is currently no emission limit on HCl for that class of incinerator.

The conditions also describe how the Permittee may calculate actual annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air contaminant. Therefore, fees based on actual emissions must also be paid on any contaminant emitted whether or not the permit contains any limitation of that contaminant.

This standard condition specifies that, unless otherwise approved by the Department, calculations of assessable emissions based on actual emissions use the most recent previous consecutive 12-month period's emissions. Since each current year's assessable emissions are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match. The Permittee will normally pay for actual emissions - just with a one-year time lag.

Projected actual emissions may differ from the previous year's actual emissions if there is a change at the facility, such as changes in equipment or an emission rate from existing equipment.

If the Permittee does not choose to annually calculate assessable emissions, emissions fees will be based on "potential to emit" (PTE).

The PTE set forth in the condition is based on liquid fuel with a sulfur content of 0.5% by weight or fuel gas with a sulfur content of 30 ppm H<sub>2</sub>S by volume. If the actual sulfur content of the fuel is greater than these assumptions, the assessable emissions calculations provided by the Permittee should reflect the actual sulfur content.

### **Condition 3 and Section 6, Visible Emissions Standard**

**Applicability:** This regulation applies to operation of all fuel-burning equipment in Alaska. Source ID(s) 1 through 10 are fuel-burning equipment. All of the heaters at the facility are subject to the BACT opacity limits contained in the revised EPA PSD (1997) permit for the Prudhoe Bay Unit.

**Factual basis:** Condition 3 requires the Permittee to comply with the federal and the state visible emission standards applicable to fuel-burning equipment. The Permittee shall not cause or allow the equipment to violate these standards. This condition also contains BACT derived opacity limits from previous EPA PSD permits for the Lummus heaters. The Lummus heaters, Source ID(s) 3 through 8, are subject to a 5% opacity limit.

This condition has recently been adopted into regulation as a standard condition. MR&R requirements for sources firing liquid fuels are listed in Section 6 of the permit.

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**Gas Fired:**

Monitoring – The monitoring of gas fired sources for visible emissions is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

**Liquid Fuel-Fired:**

Monitoring – The visible emissions must be observed by the Method-9 plan as detailed in Section 6. More frequent or less frequent testing may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emission observations and record any actions taken to reduce visible emissions.

Reporting - The Permittee is required to report: 1) emissions in excess of the federal and the state visible emissions standard, and 2) deviations from permit conditions. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

**Dual Fuel-Fired Sources:**

For Source ID(s) 1, 2, 7, and 8, as long as they operate only on gas, monitoring is an annual certification that only gaseous fuels were used in the equipment. When they operate on liquid fuel less than 400 hours per consecutive 12-month period, monitoring is annual certification of compliance with the opacity standard. When they operate on backup liquid fuel for more than 400 hours during any consecutive 12-month period, monitoring as detailed in Section 6 is required in accordance with recently issued Department Guidance AWQ 02-014. The 400 hour trigger for additional monitoring applies to each individual unit, not as a combined total for all units.

**Condition 4 and Section 6, Particulate Matter (PM) Standard**

**Applicability:** The PM standard applies to operation of all fuel burning equipment in Alaska. Source ID(s) 1 through 10 are fuel-burning equipment. The SIP standard for PM applies to all fuel-burning equipment because it is contained in the federally approved SIP dated October 1983.

**Factual basis:** Condition 4 requires the Permittee to comply with the state PM (also called grain loading) standard applicable to fuel-burning equipment. The Permittee shall not cause or allow fuel-burning equipment to violate this standard.

MR&R requirements for sources firing on liquid fuels are listed in Section 6 of the permit.

**Gas Fired:**

Monitoring – The monitoring of gas fired sources for particulate matter is waived, i.e. no source testing will be required. The Department has found that natural gas fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

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Reporting – The Permittee must annually certify that only gaseous fuels are used in the equipment.

**Liquid Fuel-Fired:**

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, and 2) results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the facility operating report.

**Dual Fuel-Fired Sources:**

For Source ID(s) 1, 2, 7, and 8, as long as they operate only on gas, monitoring is an annual certification that only gaseous fuels were used in the equipment. When they operate on liquid fuel less than 400 hours per consecutive 12-month period, monitoring is annual certification of compliance with the particulate matter standard. When they operate on backup liquid fuel for more than 400 hours during any consecutive 12-month period, monitoring as detailed in Section 6 is required in accordance with recently issued Department Guidance AWQ 02-014. The 400 hour trigger for additional monitoring applies to each individual unit, not as a combined total for all units.

**Condition 5, Sulfur Compound Emissions**

**Applicability:** The sulfur emission standard applies to operation of all fuel-burning equipment in the State of Alaska. Source ID(s) 1 through 10 are fuel-burning equipment. The SIP standard for sulfur dioxide applies because it is contained in the federally approved SIP dated October 1983.

**Factual basis:** The condition requires the Permittee to comply with the sulfur emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the liquid, hydrocarbon fuel (e.g. liquid or No. 2 liquid fuel). Fuel containing no more than 0.75% sulfur by weight will always comply with the emission standard. For fuels with a sulfur content higher than 0.75%, the condition requires the Permittee to use Section 16 to calculate the sulfur-dioxide concentration using the equations to show that the standard is not exceeded.

Monitoring - Fuel sulfur testing will verify compliance.

Fuel gas sulfur is measured as hydrogen sulfide (H<sub>2</sub>S) concentration in ppm by volume (ppmv). Calculations<sup>6</sup> show that fuel gas containing no more than 4000 ppm H<sub>2</sub>S will always comply with this emission standard. This is true for all fuel gases, even with no excess air.

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<sup>6</sup> See ADEC Air Permits Web Site at <http://www.state.ak.us/dec/dawq/aqm/newpermit.htm>, under "Stoichiometric Mass Balance Calculations of Exhaust Gas SO<sub>2</sub> Concentration."

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Equations to calculate the exhaust gas SO<sub>2</sub> concentrations resulting from the combustion of fuel gas were not included in this permit. Fuel gas with an H<sub>2</sub>S concentration of even 10 percent of 4000 ppm is currently not available in Alaska and is not projected to be available at the STP during the life of this permit.

Recordkeeping - For liquid fuel the Permittee is required to record the fuel sulfur content, and for fuel gas, the H<sub>2</sub>S concentration of the fuel gas.

Reporting – The Permittee is required to report as excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include the material balance calculations for liquid fuel in the excess emissions report.

The Permittee is required to include copies of the records mentioned in the previous paragraph with the facility operating report.

## **Condition 6, BACT Emission Limits**

**Applicability** The BACT limits apply because they were developed during PSD reviews of facility by the EPA. These conditions require the Permittee to comply with the emission limits derived from BACT analysis. The Permittee may not cause or allow their equipment to violate these limits.

**Factual basis:** Between 1979 and 1981, EPA Region 10 issued four PSD permits for Prudhoe Bay Facilities. On August 29, 1997 EPA issued revisions to the four PSD permits. The primary revisions include identification of specific equipment and tag numbers, apportionment of either field-wide or facility-wide ton per year limits to unit specific limits, and updating emission limits based solely on AP-42 factors to values in the edition of AP-42 that were current in 1997.

As part of the EPA process it was demonstrated to Region 10 that on a ton per year basis an overall decrease in allowable emissions would occur under the permit revision. The only exception was an increase in allowable SO<sub>2</sub> emissions due to subsequent permitting by ADEC that raised the SO<sub>2</sub> BACT limit established by EPA in one of the four EPA permits issued (PSD IV).

The majority of these changes reflect the revised emission limits granted by EPA on August 29, 1997. The EPA revisions, which established short-term and ton per year emission limitations for the Lummus heaters (Source IDs 3 through 8), have been incorporated into this Title V Operating Permit.

For Source ID(s) 3 through 8 (heaters), ton per year emission limits apply for NO<sub>x</sub> and CO. EPA also established short-term BACT NO<sub>x</sub> and CO emission limits of 0.08 and 0.061 lb/MMBtu, respectively.

Monitoring – For annual emission limits contained in Table 2, the facility will use fuel consumption and/or hours of operation along with the emission factors contained in Section 17 to calculate monthly and then use the monthly values to determine the twelve-month period summation of emissions.

Recordkeeping – Maintain records of monthly emission levels.

Reporting – Report compliance with annual emission limits for Source ID(s) 3 through 8. Notify the department when annual emission limits are exceeded.

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## **Conditions 7 and 8, Operating Permit Requirements Carried Forward**

**Applicability and Factual Basis:** The previous operating permit 9473-AA014 contained conditions that must be carried forward to this Title V permit. Conditions 7 and 8 contain requirements to measure operating hours and fuel consumption so that annual emission levels may be calculated for Source ID(s) 1 through 10. The requirement to monitor fuel gas and liquid fuel sulfur content that was included in the previous operating permit 9473-AA014 is carried forward into conditions 5 and 16.1.

## **Condition 9, Flue Gas Monitoring**

**Applicability and Factual Basis:** EPA permit PSD-X81-01 included a requirement to conduct CO or O<sub>2</sub> monitoring for the Lummus heaters (Source IDs 3 through 8) at STP in accordance with an approved monitoring plan. This requirement was not included in previous operating permit 9473-AA014, but is carried forward from the EPA permit.

## **Conditions 10 through 14, NSPS Subpart A Requirements**

**Applicability:** The Department has incorporated by reference the NSPS effective July 1, 2001, for specific industrial activities, as listed in 18 AAC 50.040.

Most (with the exception of some storage tanks) sources subject to an NSPS are subject to Subpart A. At this facility, Source ID(s) 1 and 2 are subject to NSPS Subpart GG and Source ID 11 is subject to Subpart Ka, and therefore subject to Subpart A.

Condition 10 - Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to all NSPS sources subject to Subpart A.

Condition 11 - excess emission reporting requirements in 40 C.F.R. 60.7(c) & (d) is applicable to Source ID(s) 1 and 2 because there are applicable emission standards. The Department has included in Attachment A of the Statement of Basis a copy of the federal EEMSP reporting form for use by the facility.

Condition 12 - Good air pollution control practices in 40 C.F.R. 60.11(d) are applicable to all NSPS sources subject to Subpart A (Source ID(s) 1, 2, and 11).

Condition 13 – Credible Evidence procedures in 40 C.F.R. 60.11(g) are applicable to all NSPS sources subject to Subpart A with applicable standards (Source ID(s) 1 and 2).

Condition 14 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to Source ID(s) 1 and 2.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to all NSPS sources. This requirement is satisfied by condition 56.

**Factual Basis:** General provisions of 40 CFR 60, Subpart A apply to owners or operators who are subject to a relevant subpart under Part 60, except when otherwise specified in an applicable subpart or relevant standard. The intent of Subpart A is to eliminate the repetition of requirements applicable to all owners or operators affected by NSPS.

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### Condition 15, NSPS Subpart Ka

**Applicability:** NSPS Subpart Ka applies to sources that were built or modified after May 18, 1978 and prior to July 23, 1984 with a storage capacity greater than 40,000 gallons. Source ID 11 was constructed during this time frame, has a storage capacity of greater than 40,000 gallons, and stores petroleum liquid(s).

**Factual Basis:** If the true vapor pressure of the liquid stored in the tank is maintained below 1.0 psia, then there are no operational monitoring requirements and if the true vapor pressure is maintained below 1.5 psia, then there are no applicable equipment standards.

Monitoring consists of an annual certification of compliance. If condition 15 is met, then there are no applicable requirements other than those found in 40 CFR 60, Subpart A.

### Condition 16, NSPS Subpart GG Requirements

**Applicability:** NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 degrees F, and 14.7 psi) equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the lower heating value of the fuels fired and constructed, modified, or reconstructed after October 3, 1977.

**Factual Basis:** These conditions incorporate NSPS Subpart GG sulfur compound emission limits. The Permittee may not allow equipment to violate these standards.

*SO<sub>2</sub> Standard:* The Permittee is required to comply with one of the following sulfur requirements for Source ID(s) 1 and 2:

- (1) do not cause or allow SO<sub>2</sub> emission in excess of 0.015 percent by volume, at 15 percent O<sub>2</sub> and on a dry basis (150 ppmv), or
- (2) do not cause or allow the sulfur content for the fuel burned in Source ID(s) 1 and 2 to exceed 0.8 percent by weight.

Condition 16 cites the monitoring requirements of the EPA approved alternative monitoring plan and schedule granted to BPXA in accordance with 40 C.F.R. 60.334(b)(2). EPA approved the alternative monitoring plan and schedule in correspondence to BPXA dated July 13, 1993, August 20, 1993, October 18, 1993, August 19, 1996, and October 2, 1997.

*Exemptions* - Emergency gas turbines,<sup>7</sup> military gas turbines for use in other than a garrison facility, military gas turbines installed for use as military training facilities, and fire fighting gas turbines are exempt from Subpart GG NO<sub>x</sub> emission limits. Source ID(s) 1 and 2 are liquid fuel-fired turbines that drive generators and are used only when there is an interruption of the primary power source for the facility. Source ID(s) 1 and 2 meet the definition of emergency gas turbines and are, therefore, exempt from the Subpart GG NO<sub>x</sub> emission limits, per 40 CFR 60.332(g).

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<sup>7</sup> *Emergency Gas Turbine* means any stationary gas turbine that operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation, as defined in 40 C.F.R. 60.331(e), effective 7/1/01.

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## **Conditions 17 through 24 (Section 6), Visible Emissions and PM Monitoring Plan**

**Applicability:** Apply because these conditions detail the monitoring, recordkeeping, and reporting required in conditions 3 and 4.

**Factual Basis:** Each permit term and condition must include MR&R requirements showing verifiable compliance with each permit term and condition. The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Facility Operation and Maintenance Program, that the facility is in continuous compliance with the State's emission standards for visible emissions and particulate matter. The correlation between particulate matter and visible emissions that is the basis for this monitoring procedure is discussed under conditions 3 and 4.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for liquid fuel fired sources. Equipment types at the Prudhoe STP covered by these conditions are liquid fuel-fired internal combustion engines, dual fuel fired turbines and dual fuel fired heaters. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program. The monitoring frequency in condition 17 is not as frequent as in 18 AAC 50.346(c) because all the monitored equipment is either emergency equipment or fired using liquid fuel only in emergencies and are expected to seldom experience more than 400 hours of operation per year.

Monitoring frequencies for equipment fired using liquid hydrocarbon fuels are detailed in these conditions.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from sources either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

More details are found in the Factual Basis statement for conditions 3 and 4

## **Condition 25, Owner Requested Limits**

**Applicability:** The Permittee requested limits for the hours of operation per consecutive 12-month period per source for the emergency Solar Generators (Source IDs 1 and 2), emergency Fire Water Pump (Source ID9) and the emergency backup generator (Source ID 10). The exceedance of the operational hour-limit is not a violation if the Department determines that the exceedance is due to an emergency.

**Factual Basis:** The operational limits stated in the permit apply to operational testing and routine maintenance periods. The limit for Source IDs 1 and 2 applies to liquid fuel and fuel gas operation combined.

## **Conditions 26 through 29, Insignificant Sources**

**Applicability:** These general emission standards apply to all industrial processes, fuel-burning equipment, and incinerators regardless of size.

**Factual basis:** Conditions 26 through 29 require the Permittee to comply with the general standards for insignificant sources. The Permittee may not cause or allow their equipment to violate these standards. Insignificant sources are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

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The Department finds that the insignificant sources at this facility do not need specific monitoring, recordkeeping and reporting to ensure compliance with these conditions.

### **Condition 30, NESHAPs Subpart A, Applicability Determination**

**Applicability:** NESHAPs Subpart A requirements apply to facilities categorized in 40 C.F.R. 63.

**Factual Basis:** The condition requires the Permittee to retain records of NESHAP applicability determinations.

### **Condition 31, Asbestos NESHAP**

**Applicability:** The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

**Factual Basis:** The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

### **Condition 32, Refrigerant Recycling and Disposal**

**Applicability:** Applies if the Permittee engages in the recycling or disposal of certain refrigerants.

**Factual Basis:** The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain refrigerants. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

### **Condition 33, Good Air Pollution Control Practice**

**Applicability:** Applies to all sources, **except** NSPS regulated sources, i.e. Source ID(s) 3 through 10.

**Factual basis:** The condition requires the Permittee to comply with good air pollution control practices for all sources.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

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The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

### **Condition 34, Dilution**

**Applicability:** This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

**Factual Basis:** The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50. No specific monitoring for this condition is practical. Other than the required annual certification, no monitoring, recordkeeping or reporting is necessary for this condition. The Permittee presently does not dilute emissions. Dilution would probably require a physical change to the facility. A reasonable inquiry and certification by a responsible official as to whether such changes occurred over the reporting period is sufficient to assure compliance.

### **Condition 35, Reasonable Precautions to Prevent Fugitive Dust**

**Applicability:** Bulk material handling requirements apply to the Permittee because the Permittee could engage in bulk material handling, transporting, or storing; or could engage in industrial activity at the facility.

**Factual Basis:** The underlying regulation, 18 AAC 50.045(d), requires the Permittee to take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

### **Condition 36, Stack Injection**

**Applicability:** Stack injection requirements apply to the facility because the facility contains a stack or source constructed or modified after November 1, 1982.

**Factual Basis:** The condition prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). No specific monitoring for this condition is practical. Other than the required annual certification, no monitoring, recordkeeping, or reporting is necessary for this condition. The Permittee presently does not inject wastes into stacks at the facility. A reasonable inquiry and certification by a responsible official as to whether such changes occurred over the reporting period is sufficient to assure compliance. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

### **Condition 37, Open Burning**

**Applicability:** The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the facility.

**Factual Basis:** The condition requires the Permittee to comply with the regulatory requirements when conducting open burning at the facility.

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More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Additional monitoring is achieved through condition 38, which requires a record of complaints. Therefore, the Department does not believe that additional monitoring is warranted.

### **Condition 38, Air Pollution Prohibited**

**Applicability:** Air Pollution Prohibited requirements apply to the facility because the facility will have emissions.

**Factual Basis:** The condition prohibits the Permittee from causing any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property. While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints and to submit copies of these records upon request of the Department.

The Department will determine whether the necessary actions were taken. No corrective actions are necessary if the complaint is frivolous or there is not a violation of 18 AAC 50.110, however this condition is intended to prevent the Permittee from prejudging that complaints are invalid.

### **Condition 39, Technology-Based Emission Standard**

**Applicability:** Technology Based Emission Standard requirements apply to the facility because the facility contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other “technologically feasible” determinations.

**Factual Basis:** The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with condition 57. Excess emission reporting under condition 57 requires information on the steps taken to minimize emissions; the report required under condition 57 is adequate monitoring for compliance with this condition.

### **Condition 40, Permit Renewal**

**Applicability:** Applies if the Permittee intends to renew the permit.

**Factual Basis:** The Permittee is required to submit an application for permit renewal by the specific dates applicable to Prudhoe Seawater Treatment Plant as listed in this condition. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

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### **Conditions 41 and 42, Halon Prohibitions**

**Applicability:** These prohibitions apply to all facilities that use halon for fire extinguishing and explosion inertion. The Prudhoe Seawater Treatment Plant uses halon and is therefore subject to the federal regulations contained in 40 CFR 82.

**Factual basis:** These conditions incorporate applicable 40 CFR 82 requirements. The Permittee may not cause or allow violations of these prohibitions. No additional MR&R requirements are required to ensure compliance with these federal requirements.

### **Condition 43, Requested Source Tests**

**Applicability:** Applies because this is a standard condition to be included in all permits.

**Factual Basis:** The Permittee is required to conduct source tests as requested by the Department. Monitoring consists of conducting the requested source test.

### **Conditions 44 through 46, Operating Conditions, Reference Test Methods, Excess Air Requirements**

**Applicability:** Apply because the Permittee is required to conduct source tests if requested by the Department.

**Factual Basis:** The Permittee is required to conduct source tests as set out in conditions 44 through 46. These conditions supplement the specific monitoring requirements stated elsewhere in this permit. The test reports required by condition 51 adequately monitor compliance with conditions 44 through 46.

### **Condition 47, Test Exemption**

**Applicability:** Applies when the source exhaust is observed for visible emissions.

**Factual Basis:** As provided in 18 AAC 50.345(a), 5/03/02, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

### **Conditions 48 through 51, Test Deadline Extension, Test Plans, Notifications and Reports**

**Applicability:** Apply because the Permittee is required to conduct source tests if requested by the Department.

**Factual Basis:** Standard conditions 18 AAC 50.345(l) - (o) are incorporated through these conditions. Because these standard conditions supplement specific monitoring requirements stated elsewhere in this permit, no MR&R is required. The source test itself is adequate to monitor compliance with this condition.

### **Condition 52, Particulate Matter (PM) Calculations**

**Applicability:** Applies when the Permittee tests for compliance with the PM standard.

**Factual Basis:** The condition incorporates a regulatory requirement for PM source tests. Because this condition supplements specific monitoring requirements stated elsewhere in this permit, no MR&R is required.

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### **Condition 53, Certification**

**Applicability:** This is a standard condition to be included in all permits. Applies because every permit requires the Permittee to submit reports.

**Factual Basis:** This condition requires the Permittee to certify all reports submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be certified with the facility operating report, even though it must still be submitted more frequently than the facility operating report. This condition supplements the reporting requirements of this permit.

### **Condition 54, Submittals**

**Applicability:** Applies because the Permittee is required to send reports to the Department.

**Factual Basis:** This condition requires the Permittee to send submittals to the address specified in this condition. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the reporting requirements of this permit.

### **Condition 55, Information Requests**

**Applicability:** Applies to all Permittees, and incorporates a standard condition.

**Factual Basis:** This condition incorporates a standard condition in regulation, which requires the Permittee to submit information requested by the Department. Receipt of the requested information is adequate monitoring.

### **Condition 56, Recordkeeping Requirements**

**Applicability:** Applies because the Permittee is required by the permit to keep records.

**Factual Basis:** The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide adequate evidence of compliance with this requirement.

### **Condition 57, Excess Emission and Permit Deviation Reports**

**Applicability:** Applies when the emissions or operations deviate from the requirements of the permit.

**Factual Basis:** This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The reports themselves and the other monitoring records required under this permit provide an adequate monitoring of whether the Permittee has complied with the condition.

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**Condition 58, NSPS and NESHAP Reports**

**Applicability:** Applies to facilities subject to NSPS and NESHAP federal regulations.

**Factual Basis:** The condition supplements the specific reporting requirements in 40 C.F.R. 60 and 40 C.F.R. 61. The condition does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

**Condition 59, Facility Operating Reports**

**Applicability:** Applies to all permits.

**Factual Basis:** The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit and does not need any MR&R. The reports themselves are adequate monitoring for compliance with this condition.

**Condition 60, Annual Compliance Certification**

**Applicability:** Applies to all Permittees.

**Factual Basis:** This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Because this requirement is a report, no MR&R is needed.

**Conditions 61 through 67, Standard Conditions**

**Applicability:** Apply because these are standard conditions to be included in all permits.

**Factual Basis:** These are standard conditions required for all operating permits.

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## Condition 68, Permit Shield

**Applicability** Applies because the Permittee has requested a shield for the applicable requirements listed under this condition.

**Factual Basis:** Table 4 of Operating Permit No. 271TVP01 shows the permit shields that the Department granted to the Permittee. The following table shows the requests that were denied and the reason that they were denied. The Department based the determinations on the permit application, past operating permit, construction permits, and inspection reports.

**Table H - Permit Shields Denied**

<b>SHIELD REQUESTED FOR:</b>	<b>REASON FOR SHIELD REQUEST:</b>	<b>REASON FOR REQUEST DENIAL:</b>
<b>Facility-Wide</b>		
18 AAC 50.045(b) – Prohibitions	The permit implements all applicable air quality requirements for the facility. Since compliance with the permit will constitute compliance with applicable local, state, or federal air quality laws, this requirement is not applicable to the facility.	These prohibitions are ongoing requirements and therefore cannot be shielded. The prohibitions have not been placed in the permit because they add no value to the permit with respect to controlling facility emission sources. These prohibitions remain in effect because they are in regulation whether they appear in the facility operating permit or not.
18 AAC 50.045(c) – Prohibitions	This requirement will be implemented through 18 AAC 50.201, which is otherwise addressed in the permit. This requirement is not applicable because the department will impose any special requirements to protect ambient air quality through permit conditions adopted under 50.201.	Shielding the applicant from subparagraph (b), for instance, would have the effect of shielding the applicant from all requirements contained in the Air Quality Control Regulations including the requirement to obtain a permit if the shield requested is granted.

SHIELD REQUESTED FOR:	REASON FOR SHIELD REQUEST:	REASON FOR REQUEST DENIAL:
AQC Permit 9743-AA014, Conditions 1, 3, 7-13, 17-19.	These permit conditions are not "facility-specific requirements". [ref. 18 AAC 50.335(e)(5)]. Condition 18 has been replaced by condition 67 in 271TVP01.	Generally applicable requirements found in permits issued before January 18, 1997 are no longer applicable once the Department issues a Title V operating permit. The permittee must only comply with the previous requirements until the new permit is issued (see 18 AAC 50.340(i) <b>Permit Continuity</b> ). There is no reason to shield BPXA from a permit that they no longer need to comply with once this operating permit is issued.  Facility-specific conditions from permit number 9743-AA014 that need to be carried forward into this operating/construction permit according to the regulation in 18 AAC 50.350(d)(1)(D) have been identified in Table B of this Statement of Basis. Also, facility-specific conditions that are not carried forward are described in Table B along with the reason(s) that they are no longer required to be included with the permit.
AQC Permit 9743-AA014, Condition 2.	The proposed Title V permit conditions have included the most stringent applicable emission standards. This requirement is no longer needed.	
AQC Permit 9743-AA014, Condition 6 and Exhibit D, item	The requirement to calculate and report monthly SO <sub>2</sub> emissions was instituted in response to ADEC's concern due to reservoir aging could cause a PSD modification. ADEC has previously granted BPXA's requests to remove this condition from the permits of other BPXA facilities.	
AQC Permit 9473-AA014, Condition 16	This requirement expired on 11/30/95. Condition no longer applicable.	

## Attachment A

### Figure 1--Summary Report -- Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO<sub>2</sub>/NO<sub>x</sub>/fuel sulfur)

Reporting period dates:

From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer and Model No. \_\_\_\_\_

Date of Latest CMS (CEMS and PEMS) Certification or Audit \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup> \_\_\_\_\_

Emission data summary <sup>1</sup>	CMS (CEMS and PEMS) performance summary <sup>1</sup>
1. Duration of excess emissions in reporting period due to: a. Startup/shutdown _____ b. Control equipment problems _____ c. Process problems _____ d. Other known causes _____ e. Unknown causes _____	1. CMS (CEMS and PEMS) downtime in reporting period reporting period due to: a. Monitor equipment malfunctions _____ b. Non-Monitor equipment malfunctions _____ c. Quality assurance calibration _____ d. Other known causes _____ e. Unknown causes _____
2. Total duration of excess emission _____	2. Total CMS (CEMS and PEMS) Downtime _____
3. Total duration of excess emissions X (100) [Total source operating time] % <sup>2</sup>	3. [Total CMS (CEMS and PEMS) Downtime] X (100) / [Total source operating time] % <sup>2</sup>

<sup>1</sup>For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup>For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS (CEMS or PEMS) downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in this condition shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

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Name

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Signature